S. HRG. 100-822, PT. 2

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

# HEARINGS

BEFORE A

## SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

SECOND SESSION

ON

## H.R. 4867

AN ACT MAKING APPROPRIATIONS FOR THE DEPARTMENTS OF THE INTERIOR AND RELATED AGENCIES, FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1989, AND FOR OTHER PURPOSES

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**Part 2 (Pages 1–1322)**

**Advisory Council on Historic Preservation**
**Commission of Fine Arts**
**Congressional witnesses**
**Department of Agriculture**
**Department of Energy**
**Department of the Interior**
**Franklin Delano Roosevelt Memorial Commission**
**Institute of American Indian Arts**
**National Gallery of Art**
**Navajo and Hopi Indian Relocation Commission**
**Nondepartmental witnesses**
**Territorial Affairs**

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# CONTENTS

---

MONDAY, APRIL 11, 1988

Page

Department of Agriculture: Forest Service .......... 1

TUESDAY, APRIL 12, 1988

Department of Energy: Energy Conservation Programs .......... 127

THURSDAY, APRIL 14, 1988

Franklin Delano Roosevelt Memorial Commission .......... 197
National Gallery of Art .......... 207
Commission of Fine Arts .......... 225
Advisory Council on Historic Preservation .......... 233

MONDAY, APRIL 18, 1988

Department of Energy: Fossil Energy Research and Development Programs .......... 249

WEDNESDAY, APRIL 20, 1988

Territorial Affairs:

- Virgin Islands .......... 363
- American Samoa .......... 373
- Guam .......... 419
- Commonwealth of the Northern Marianas .......... 429
- Federated States of Micronesia .......... 451
- Republic of the Marshall Islands .......... 463
- Republic of Palau .......... 501

Department of the Interior: Office of Territorial and International Affairs .......... 513

TUESDAY, APRIL 26, 1988

Department of the Interior:

- Office of the Secretary .......... 559
- Office of the Solicitor .......... 585
- Office of the Inspector General .......... 599

Navajo and Hopi Indian Relocation Commission .......... 605
Institute of American Indian Arts .......... 639

THURSDAY, APRIL 28, 1988

Department of the Interior: Bureau of Land Management .......... 643

MONDAY, MAY 9, 1988

Nondepartmental witnesses .......... 745

MONDAY, MAY 23, 1988

Page
Department of the Interior: Office of the Secretary ..... 1205
Congressional witnesses ..... 1261

MONDAY, JUNE 6, 1988

Department of Energy: Office of the Secretary ..... 1291

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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MONDAY, APRIL 11, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 8:33 a.m., in room SD–116, Dirksen Senate Office Building, Hon. Robert Byrd (chairman) presiding.

Present: Senators Byrd, Hatfield, McClure, and Stevens.

## DEPARTMENT OF AGRICULTURE

### FOREST SERVICE

**STATEMENTS OF:**

**GEORGE S. DUNLOP, ASSISTANT SECRETARY**
**F. DALE ROBERTSON, CHIEF, FOREST SERVICE**

**ACCOMPANIED BY:**

**GEORGE M. LEONARD, ASSOCIATE CHIEF**
**JEFF M. SIRMON, DEPUTY CHIEF, PROGRAMS AND LEGISLATION**
**JAMES C. OVERBAY, DEPUTY CHIEF, NATIONAL FOREST SYSTEM**
**JERRY A. SESCO, DEPUTY CHIEF, RESEARCH**
**ALLAN J. WEST, DEPUTY CHIEF, STATE AND PRIVATE FORESTRY**
**WILLIAM L. RICE, DEPUTY CHIEF, ADMINISTRATION**
**DENNIS KAPLAN, CHIEF, BUDGET CONTROL AND ANALYSIS, DEPARTMENT OF AGRICULTURE**

### BUDGET REQUEST

Senator BYRD. The subcommittee will come to order.

This morning we review the 1989 budget estimate for the Forest Service. The budget request for research is $129,279,000, a reduction of $6,231,000, or minus 4 percent from 1988 appropriations to date.

The appropriation request for State and private forestry is $34,781,000, a reduction of $41,688,000, or minus 55 percent from 1988 appropriations to date.

The budget estimate for the Service's major operating program, the National Forest System appropriation account, is $1,159,655,000, a decrease of $83,736,000, or minus 6 percent from 1988 appropriations to date.

For construction, the budget request is $235,774,000 of which $31,800,000 is proposed to be derived from user fees and special use fees.

The budget proposes no new land acquisition funding compared to fiscal year 1988 appropriation of $49,076,000, although it does request $3,900,000 to administer the acquisition of lands funded in prior years.

Testifying for the Service today will be its Chief, Mr. Dale Robertson. Accompanying the Chief will be Mr. George Dunlop, Assistant Secretary for Special Services.

Mr. Dunlop is here to represent the Secretary on policy issues. Also in attendance is the top leadership of the Service, including the regional foresters and the heads of major research and state and private forestry offices.

## PREPARED STATEMENTS

And now, Mr. Robertson, if you would introduce your associates, we would then ask each Regional Forester to introduce himself and, as is our custom, we will insert in the record your statement or statements as though delivered in full; and you may turn directly to the questions, or you may sum up your statements, whichever you would like to do.

Whichever way you would like to proceed.

Mr. Robertson. Mr. Chairman, thank you.

Senator Byrd. You may proceed now with your statement.

[The statements follow:]

## STATEMENT OF GEORGE DUNLOP

I welcome the opportunity to appear before you today to highlight the fiscal year 1989 budget for the Forest Service. I am accompanied by F. Dale Robertson, Chief, Forest Service, George M. Leonard, Associate Chief, and Forest Service Deputy Chiefs.

Before Chief Robertson discusses the highlights of the Forest Service budget, I would like to explain briefly the policy focus of the following issues contained in this budget request: (1) the continuing need to reduce Federal expenditures; (2) the implementation of the authority and funding provided by Congress to combat illegal Cannabis activities on the national forests; and (3) program balance with optimum benefits, including increased receipts, from productive and innovative multiple use management of national forest resources.

### FURTHER REDUCTIONS IN FEDERAL EXPENDITURES

In a recent message to Congress, the Administration noted that total revenues paid to the Federal Government had increased by over $250 billion while total expenditures had increased by some $325 billion. The Bipartisan Budget Agreement reached late last year between the Administration and the Congress underscored the continuing need for deliberate reductions in government spending through better identification of priorities. The proposed FY 1989 budget authority for the Forest Service accomplishes this objective through a slight decrease in overall funding, while also accomplishing reductions in specific program areas based on difficult, but necessary, choices.

For example, State and Private Forestry funds are reduced to $34.8 million as the agency adjusts to the changing role of this program from past years and moves from financial assistance toward more technical assistance, technology transfer, and coordination with States.

#### Revenue

Receipts generated from lands managed by the Forest Service are expected to total about $1.4 billion. Under current laws, Forest Service payments to States from these receipts are expected to be about $306 million in FY 1989.

### COMBATING ILLEGAL CANNABIS ACTIVITIES

The Department and the Forest Service continue to view illegal Cannabis production and related activities on national forest lands as part of a larger and serious problem confronting our country. We appreciate that this Committee has recognized the need to develop and implement law enforcement capabilities designed to detect, investigate, apprehend, and prosecute those responsible for breaking our laws.

### BALANCE WITH OPTIMUM PUBLIC BENEFITS AND RECEIPTS

This budget request represents a sound balance between investments for increased receipts, based on reasonable economic development of productive resources, and opportunities for increased public use and enjoyment of these same national forest lands. This balance can be traced to several developments.

Among them are the forest planning process through which 84 of 123 forest plans are now final and 39 forest plans are now in draft; joint Forest Service and General Accounting Office (GAO) development of a timber cost accounting system known as the Timber Sales Program Information Reporting System (TSPIRS), and the performance testing of this system; and the Chief's new recreation initiative. This initiative is an outgrowth both of the Chief's leadership and enthusiasm for providing more recreational opportunities on the national forests for Americans, and the Forest Service's planning effort, which shows that Americans are seeking expanded recreation opportunities in the future on a greater number of national forests than ever before. The potential of providing increased recreation by new partnerships with the private sector looks promising.

Mr. Chairman, this concludes my opening remarks. Chief Robertson will now present his remarks on the FY 1989 budget.

---

## STATEMENT OF F. DALE ROBERTSON

I welcome this opportunity to discuss the President's budget request for Forest Service programs for fiscal year 1989.

### FY 1989 Budget

The 1989 budget request for the Forest Service is $2.3 billion compared with $2.4 billion appropriated in 1988. Receipts from land managed by the Forest Service are estimated at $1.4 billion. At this funding level, we will continue to do high-priority research, protect Federal lands from pests, and provide a balanced resource management program on the National Forests and Grasslands.

### Forest Research

We propose $129.3 million for forest research, compared with $135.5 million appropriated in 1988. This budget would permit us to continue a strong research effort in all budget categories. We will emphasize research on southern forest productivity, wildlife and fish interactions with timber management, forest insect and disease outbreaks, international trade and competitiveness, forest management in the wildland/urban interface, and interactions between the forest and the atmosphere. We propose to eliminate funding for competitive grants.

### State and Private Forestry

The budget request includes $34.8 million, compared with $76.5 million appropriated in 1988. The primary emphasis will be on forest pest management on Federal lands and technical assistance to the States. The States will be expected to assume more responsibility for assisting private landowners. The Federal role will be to provide limited specialized technical assistance and coordination, collect and analyze data nationwide, and serve as an information clearinghouse.

Except for the cooperative pest surveys and funding to Minnesota for intensive management associated with the Boundary Waters Canoe Area wilderness, financial assistance to States would be discontinued. Also, the forest management and utilization program, including urban forestry, would be terminated.

### National Forest System

We propose funding of $1.2 billion, about the same as the 1988 appropriation. The biggest change from 1988 is in fire fighting expenses, where we propose $35 million, compared with $125 million in the 1988 appropriation. We plan to offer 11.2 billion board feet of timber, compared with 11.5 billion board feet in 1988. We expect a harvest level of 12.2 billion board feet.

### Construction

We propose $204.0 million, compared to $214.1 million appropriated in 1988. Recreation Construction ($19.2 million) and Trail Construction ($12.6 million) are proposed to be financed from a new receipts account, Operation and Maintenance of Recreation Facilities. We will be proposing legislation to expand the funding sources and uses for this new account created by the recent budget reconciliation act.

### Land Acquisition

We request $3.9 million to close existing cases. No new acquisitions are proposed at this time. Land exchanges will be relied upon to acquire other high-priority tracts.

### National Recreation and Wildlife Strategy

We will emphasize creating more high quality outdoor recreation and improving habitat for wildlife and fish to respond to the needs of our customers. We are challenging current and new partners and cooperators to offer needed services and stimulate rural tourism and recreation economies. We have been successful in wildlife cost-sharing, and we are expanding this concept to recreation. We have included $3 million for challenge cost-share agreements in recreation and $5 million for wildlife in the 1989 budget request.

Mr. Chairman, this concludes my remarks. I will be happy to answer any questions the Committee might have.

## OPENING REMARKS OF ASSISTANT SECRETARY DUNLOP

Mr. ROBERTSON. Assistant Secretary Dunlop has a few opening words.

Senator BYRD. Go right ahead, Mr. Secretary.

Secretary DUNLOP. I have formal remarks that are in the record. And in lieu of going through those points, I would like to make three brief points, if I may.

First of all, on behalf of Secretary Lyng and those of us in the executive branch that work with the Forest Service, I wanted to express the confidence we have in this agency. It is a well-managed agency and it has a strong sense of mission.

And I think, just summing it all up, the bottom line is that they meet all of the expectations for undertaking a job and doing it well, and those of us in the Office of the Secretary are greatly appreciative.

Second of all, I wanted to express the confidence that we in the Office of the Secretary have in the Chief and in his team, who have been introduced to you.

This is real opportunity to deal with people who are innovative and energetic. They have a deep sense of stewardship for the soil, the forest, and the land resources, and they understand the dynamics of leadership and excellence.

I have never been associated with such a capable team of people. I think the committee might take note of the fact of this confidence we have in them.

The third point I wanted to make, Mr. Chairman, is to express appreciation to Congress, to you, to this subcommittee for the careful attention you have given to a lot of the details and a lot of the reforms that the Forest Service is trying to undertake in the areas of cost-accounting and budgeting. I appreciate the willingness of this committee to look very carefully at some of the proposals they have come up with internally to modify their appropriations in the budgetary process.

The end results budgeting is what I'm referring to. In my observation, that has tremendous potential to help the Government, in general, work better. The degree to which this committee is working with the Forest Service to figure out ways to make that work in a fashion that is suitable to Congress, as well as to the administration of these programs, is something that ought to be encouraging to every American. And I compliment you.

Mr. ROBERTSON. With that statement, Mr. Chairman, let's head right into the questions.

## HARDWOODS CENTER AT PRINCETON

Senator BYRD. All right. First, I would like to talk about the proposed reductions at the new Hardwood Center at Princeton, WV. I understand that the Service is providing extra personnel and assistance in starting the new advanced Hardwood Processing and Technical Resource Center at the Forestry Science Laboratory in Princeton.

I appreciate how hard the Service is working in an effort to make this project successful. However, I understand that the 1989 budget proposes to reduce funding to the Hardwood Research Center.

I am told that the proposal would result in a reduction of $284,000, or minus 14 percent from fiscal year 1988 funding levels.

Is that accurate?

Mr. ROBERTSON. Yes; I believe that is accurate. About one-half of that reduction is due to the one-time cost of a computer that was needed at Princeton, a capital investment.

Senator BYRD. Precisely how much is the reduction in program?

Mr. ROBERTSON. About $154,000 from the 1989 base.

Senator BYRD. What is your current level of funding?

Mr. ROBERTSON. The total at Princeton in 1988 is $2,009,000.

Senator BYRD. Why are these reductions being proposed aside from the one-time expenditure to which you referred?

Mr. ROBERTSON. It is a matter of relative priorities, Mr. Chairman. We have shifted funding within West Virginia among the research work units, and we have tried to increase our overall priority on insect and disease control.

As a result, some of the other research programs have been reduced in order to fund forest pest research. Plus, this overall 3- to 4-percent decrease in research that you talked about in your opening statement had to be absorbed.

Senator BYRD. What will be the effect of this reduction?

Mr. ROBERTSON. Maybe I should ask Denver Burns, who has the responsibility for research in West Virginia to join us.

Denver, could you tell us what the impacts are in Princeton from these reductions?

Mr. BURNS. There are two forms of impact. One impact will be a slight downsizing of the Technology Information Center as part of the new center at Princeton.

The second will be a termination of some work on the physical aspects of demand for hardwood pallets in furniture manufacturing. Both reductions are in program dollars.

Senator BYRD. What is the justification for this cut?

Mr. BURNS. The relative priorities within our programs. The Center at Princeton has been funded at almost its 1988 level.

Senator BYRD. What was the 1988 level?

Mr. BURNS. The level was $675,000 reprogrammed within the Forest Service, and an additional $600,000 added by Congress in 1988.

Senator BYRD. What impact will this have, this cut have on the personnel there?

Mr. BURNS. There will be no impact on the personnel at Princeton.

Senator BYRD. So, what is the bottom line as to what will suffer?

Mr. BURNS. Some of the programs that were proceeding, before the Center was introduced, will be slowed down or terminated. The Center work will go forward, but at a slower rate than it is in 1988.

Senator BYRD. What program will be slowed down or terminated?

Mr. BURNS. The terminated part will deal with an examination of the physical aspects of hardwood lumber for pallets, for furniture manufacturing. Slowdown in the Center will affect the rate at which we are able to annotate literature, to make information available to users.

Senator BYRD. Why would you slow down research on furniture manufacturing?

Mr. BURNS. The physical part of the knowledge necessary for furniture manufacturing is pretty well complete. We have documented the physical nature of the wood parts that are used in the furniture manufacturing industry.

Senator BYRD. Is the funding request going to result in a slowdown in the pace of research?

Mr. BURNS. The only part that will actually be slowed down is the annotation of literature for the Technical Information Resource Center.

Senator BYRD. How important is that?

Mr. BURNS. It is important, but it is something that can be stretched out.

Senator BYRD. I guess it could be stretched out forever. How much of a delay will be caused?

Mr. BURNS. There will not be an actual delay. There would simply be a slowdown in the rate. We will not be able to annotate as much literature as we would have otherwise.

Senator BYRD. How much of a slowdown, if not a delay?

Mr. BURNS. It is hard to say specifically. I think we will not be able to annotate some of the literature that has existed elsewhere in the country and the world at Princeton.

Senator BYRD. Chief, I want to make sure that we all know how important the new Hardwood Research Center is to the people of West Virginia. It is essential that West Virginia diversify its economy.

And this Center provides an opportunity to do so. If it is to be run with strong industry cooperation, including the donation of equipment and potentially the cost-sharing of certain research applications, then I think that we at the Federal level have to hold up our end as well.

This Center will enable the Hardwood industry in the State and in other States to improve the use of hardwoods and to make possible the development of new business opportunities. In other words, these taxpayers will be returned manyfold these taxpayer dollars.

These new businesses will be able to do more than cut the tree down and ship it to another location for processing into a product with a high value in sales price; and that is what is happening now.

I want to quote from a recently published bulletin from West Virginia University commenting on the size and performance of West Virginia's wood products industry.

I quote now from this bulletin, from West Virginia University.

> Overall, the amount of value added which is generated by the State's wood industry is relatively low. This is the direct result of the low level of secondary manufacturing occurring in this State.

That is what we're trying to improve, is that secondary manufacturing. We can cut down the trees, send them to North Carolina and continue to buy back the end product, the furniture that is made in North Carolina.

> Lumber is the State's major product, but most of West Virginia's production is used or exported with little manufacturing after primary conversion.
>
> The typical sawmill in West Virginia is small and inefficient. As a consequence, most sawmills lack the financial resources to invest in the latest technology and equipment. Low value products such as mine timbers or disposable pallets are sometimes manufactured from quality logs and lumber because the mill owners do not have the knowledge and equipment required to manufacture grade lumber furniture blanks and similar high-value products.
>
> Even if improvements were made in the efficiency of West Virginia sawmills, the full value of the State's timber resources would still not be realized due to the limited manufacturing of secondary wood products.

So you spoke of pallets and I have quoted from the report. It says that those low-value products such as mine timbers or disposable pallets are sometimes manufactured from quality logs and lumber.

Why? Because mill owners don't have the knowledge and the equipment to produce something of much greater value. It seems to me that is where we come in to help them. We don't want to have to do it all ourselves; industry will help us. They will cooperate with us.

I would also point out that the Hardwood Research Center will also provide national benefits, not just West Virginia benefits, by enabling the wood industry to compete against other countries that have developed inexpensive and efficient manufacturing systems for wood products.

So, today, we are trying to improve our trade balance and our trade imbalance and compete with other countries. And this is a field in which we are not competing as well as we should be.

With these thoughts in mind, I would like—I urge you to reconsider the proposal to reduce funding for these projects at Princeton. Perhaps you will be converted to support this project in future years as much as I am committed to it.

Did you recommend this funding level, or is the budget proposal the result of OMB's pencil-pushing?

Mr. ROBERTSON. Well, there were some reductions in our budget along the way as we considered the need to reduce the Federal deficit. There was some reduction in the Forest Service recommendation on research.

But, again, that was due to trying to blend our budget into overall priorities within the Federal Government.

Senator BYRD. You did not answer the question.

Did you recommend this funding level? We all understand the need to reduce the deficit.

Mr. Robertson. I can give you what the Forest Service recommended for overall forest product harvesting research, of which this is a part.

Our recommendation was $22 million, and our overall budget came back at $18.7 million. So there was about a $4 million reduction in forest products and harvesting research, which covers our Forest Products Lab, as well as a lot of the work we do in West Virginia.

Senator Byrd. For this item specifically, can you give me the figures?

Mr. Robertson. $214,000.

Senator Byrd. What is that?

Mr. Robertson. It's what we recommended for Princeton in total additional dollars.

Senator Byrd. Over last year's budget?

Mr. Robertson. No; $214,000 above what is in this budget.

Senator Byrd. The President's budget, is that right?

Mr. Robertson. Yes.

Senator Byrd. Now, how does that compare with last year?

Mr. Robertson. You're talking about this year, fiscal 1988?

Senator Byrd. I'm talking about your recommendation, which is $214,000 over the President's budget. How does that compare with last year's budget?

Mr. Robertson. In fiscal year 1988 at Princeton, we have $2,009,000. The President's budget is $1.7 million, or a reduction of $304,000 below the 1989 base.

Senator Byrd. So this is a reduction of $304,000.

Mr. Robertson. We would have reduced it about $100,000, which would be close to what the computer cost us, which was a one-time cost.

Senator Byrd. There are $600,000 that was included in the continuing resolution for the Hardwood Research Center. We hope that you will be geared to support that, that work that has been done there. We expect industry participation.

And I intend to continue the research efforts to develop the flexible manufacturing system process at the Hardwood Research Center. I don't think that a cut, a reduction is the way to go. We are trying to stimulate not only interest, but knowledge and industry cooperation in developing an end products industry in West Virginia.

So we seem to be going in two opposite directions.

Mr. Robertson. Mr. Chairman, I agree that the hardwoods in the east and particularly West Virginia are underutilized, and there is a tremendous potential there.

We want to be involved as part of that partnership arrangement to build up the hardwood industry in West Virginia. We are committed to that.

We are going to be there as a major player in West Virginia hardwoods.

Senator Byrd. I'm going to be there as a major player also, and I will be playing with you. We don't want to kill the goose that laid the golden egg.

When it gets down to dollars, I understand the pressure you're under. I understand that full well, but I want to help you. And I want to help your people in the laboratory. I want to help the people there in West Virginia and throughout the region who are struggling.

We want to help you develop a hardwoods industry down there, a wood products industry, a furniture manufacturing industry.

It doesn't make sense to ship those hardwoods out to North Carolina and elsewhere and then buy back the end products. So we want to learn to do that ourselves.

In the long run, when we talk about dollars, that will mean more dollars for the Federal Government. It will mean more taxpayers dollars and a better utilization of the hardwoods and a better utilization of the talents and the minds, the skills of the people who work in West Virginia and in the surrounding area.

So it seems to me that this approach—and I don't blame you for it. You can only do what you can do. And, obviously, you asked for more money. This is a penny-wise and pound-foolish policy to cut funds here.

And I understand that there can be many arguments and good cases made for not cutting funds elsewhere as well.

Let's take a closer look at this funding level and look at the anticipated results and supply this committee with information as to how this money will be spent if and when it is restored. And also tell the committee how you intend to work with this new program that will be begun by the expenditures of the $600,000 that was in the continuing resolution.

How can we improve, how can we develop the kind of industry that we have been talking about?

How can the private sector best participate so as to make our tax dollars go the furthest?

Mr. ROBERTSON. We would be happy to do that work with you, Mr. Chairman.

## PARSONS LABORATORY

Senator BYRD. All right. Thank you. Let's go to the Parsons Laboratory. The budget proposes to reduce funding by $201,000, or minus 37 percent for the Appalachian Hardwood Research Program at Parsons.

What is the current level?

Mr. ROBERTSON. The total at Parsons?

Senator BYRD. Yes.

Mr. ROBERTSON. Fiscal year 1988 is $886,000. In the 1989 budget, it is proposed to be $731,000.

Senator BYRD. Why is this reduction proposed?

Mr. ROBERTSON. This is a fairly stable budget for Parsons. The 1988 budget included funding to restore the flood damage. So, the 1989 budget is a relatively stable budget for the research program at Parsons.

There is an increase in the water quality unit and a decrease in the hardwoods unit.

Senator BYRD. Has the flood work been completed?

Mr. BURNS. Yes; all flood damage has been corrected.

Senator BYRD. What impact will this proposed reduction have on personnel?

Mr. ROBERTSON. I'll ask Dr. Burns to answer that.

Mr. BURNS. In fiscal year 1988 we have hired three additional people at Parsons. We would lose one of those positions in 1989.

Senator BYRD. What is the position that would be lost?

Mr. BURNS. A computer programmer position.

Senator BYRD. Why are you reducing? Why are you eliminating that position?

Mr. BURNS. The position will be eliminated due to budgetary considerations.

Senator BYRD. How much money is involved?

Mr. BURNS. The project that that person is on is a timber management project. The reduction in that program was $204,000 below the 1989 base.

Senator BYRD. So the $204,000, that includes the position?

Mr. BURNS. Yes; the position would have to be eliminated in order to make that reduction.

Senator BYRD. How long has that position been on board?

Mr. BURNS. It has been on board about 6 months.

Senator BYRD. Why did you create the position?

Mr. BURNS. That position plus an additional position were used to tie together the yield models developed for the Appalachian hardwoods and the Allegheny hardwoods.

Senator BYRD. Does not that need still exist?

Mr. BURNS. Yes.

Senator BYRD. You are saying it was an unwise and unnecessary expenditure of moneys, the addition of the position?

Mr. BURNS. We have accomplished a great deal of work having that person with us.

Senator BYRD. But you have not accomplished everything?

Mr. BURNS. That is correct.

Senator BYRD. You have not completed the work?

Mr. BURNS. That is correct.

Senator BYRD. Then you need the position in the research money, don't you?

Mr. BURNS. We do not have it in the budget.

Senator BYRD. But you need to continue that work, don't you?

Mr. BURNS. If we had the person, we would do the work; if we don't have the person, we don't do the work.

Mr. ROBERTSON. Again, Mr. Chairman, it gets down to the relative priorities. There was an overall reduction in the timber management research program, and this has taken some share of that reduction.

Senator BYRD. And who determines what their relative priorities are? Is that OMB?

Mr. ROBERTSON. The Forest Service initially puts together all relative priorities and then it goes through the Secretary's Office and OMB.

Senator BYRD. You did not make the reduction in the Forest Service, did you?

You did not recommend that reduction, did you?

Mr. ROBERTSON. I believe we recommended a small part of that reduction.

Senator BYRD. How much did you recommend?

Mr. ROBERTSON. We recommended $108,000 above the President's budget.

And so the reduction would be about $100,000 that we recommended, and that was increased to $200,000. I should say the reduction was increased to $200,000.

Senator BYRD. If it were put back, the figure you recommended, how much would be restored?

Mr. ROBERTSON. About $100,000.

Senator BYRD. Would that continue the work, Dr. Burns? Would that retain the personnel?

Mr. BURNS. Yes; it would.

Senator BYRD. I am told this research provides the basis for scientific management of hardwoods to private landowners for a number of States, including West Virginia. And to Forest Service employees as well.

Is the demand for this type of management assistance less than it used to be?

Mr. ROBERTSON. Well, we are learning more and more about hardwood management all the time. So, we know more than we ever did before, but there is still some additional knowledge that we need to properly manage the hardwoods.

Senator BYRD. We are learning more and more, but there is more and more to learn.

So it is not time to quit, is it?

Mr. ROBERTSON. No; we do not intend to stop doing research on hardwood management.

Senator BYRD. If the Forest Service implements the new forest management plans throughout the country, will the demand for this type of management assistance be reduced?

Mr. ROBERTSON. I don't believe so.

Senator BYRD. If we are successful in developing new hardwood manufacturing facilities in West Virginia, will this type of research continue to be needed?

Mr. ROBERTSON. Yes.

Senator BYRD. The budget also provides an increase of $46,000, or plus 14 percent, which you have mentioned, for the research at the Parson's Lab for the water quality research project.

I am pleased to see that increase. What specific activity will be accelerated with this increase in funding?

Mr. ROBERTSON. I would ask Dr. Burns to answer that.

Mr. BURNS. We have a scientist who has been receiving advanced training in this area at Parson's and doing work on the acidification on watersheds.

The increase in funding will partially support that scientist. This project has also recently won a $700,000, 3-year grant from the Environmental Protection Agency, also on the effects of acidification on Appalachian watershed quality.

Senator BYRD. In comparing your 1988 budget with 1987 at Princeton and at Parson's, what was the overall change?

Mr. ROBERTSON. 1987 and 1988?

Senator BYRD. Yes; in dollars and in personnel in each of these labs.

Mr. ROBERTSON. In Parson's there was an increase of $70,000.

Senator BYRD. That was in 1988 over 1987?

Mr. ROBERTSON. Yes.

Senator BYRD. How much of that was the flood work?

Mr. SESCO. There was a $188,000 supplemental for flood work.

Senator BYRD. What does that mean, 1988 over 1987?

Mr. SESCO. The flood money came in 1987, if I remember correctly.

Mr. BURNS. The congressional increase in 1988 was $225,000.

Senator BYRD. That's Parson's. Now, aside from the flood.

Mr. BURNS. The flood money was in 1987.

Senator BYRD. How did that increase impact on personnel over 1987?

Mr. BURNS. It was an additional three people at Parson's.

Senator BYRD. Was that a net increase of three people? It had nothing to do with the flood?

Mr. BURNS. We had one retirement, we had one replacement.

Senator BYRD. Now, at Princeton, for the record, would you give us the numbers?

Mr. BURNS. The staffing?

Senator BYRD. Staffing and funding, 1988 as compared with 1987.

Mr. BURNS. The 1987 continuing resolution for Princeton had $1,149,000 and the 1988 continuing resolution had $2,009,000. Staffing in Princeton was 22 and has moved up 9 to 31 in 1988.

## GYPSY MOTH

Senator BYRD. I understand the budget proposes an increase of $1,027,000, or plus 79 percent for gypsy moth research at Morgantown.

Is that accurate?

Mr. ROBERTSON. Yes; that is a high priority for our research program. It is what we believe is one of the biggest threats to the forests of West Virginia.

That is the reason that we have shifted money to that program.

Senator BYRD. A bad shift. Money is needed. It shouldn't be shifted away from other high priorities. What can you tell us about your plan for spending the increased research money?

Mr. BURNS. We will be using the increase to do a large field evaluation of the F-1 sterility technique, which is one of the promising research tools we are pursuing.

We will also be pilot-testing the monitoring system in the AIPM areas of West Virginia and Virginia. We will accelerate work on microbial formulations to better use bacteria in gypsy moth control and to work on a virus, which is very specific to gypsy moth.

As a result of research this year, we have an ultraviolet light blocker which protects the virus longer after it has been sprayed. That will allow it to remain active and be taken up by the insects.

We will also accelerate hazard rating in southern West Virginia.

Senator BYRD. So these are new research proposals. Will the funding increase be used to support the accelerated gypsy moth control program which was started in 1987?

Mr. BURNS. Yes; it will.

Senator BYRD. Will extra research personnel be assigned to Morgantown?

Mr. BURNS. We hired three additional people there—two scientists this fiscal year, and they would be continued.

Senator BYRD. There would be no additional personnel?

Mr. BURNS. No.

## GYPSY MOTH CONTROL

Senator BYRD. Tell us what progress you are making in dealing with the advance of the gypsy moth.

Mr. ROBERTSON. Last year was a good year for us. In 1986, there were about 2.4 million acres of eastern hardwoods that were defoliated.

Last year, that dropped to 1.3 million, almost a 50-percent decrease. And, last year, we sprayed 690,000 acres in the east, including West Virginia.

We treated 85,000 acres in West Virginia. And, in addition, there were about 12,000 acres that were not treated and were defoliated.

Senator BYRD. How does that compare with the year before?

Mr. ROBERTSON. In 1986, we sprayed 83,000 acres and there were about 8,000 acres defoliated. So, we went from 8,000 to 12,000 acres defoliated in West Virginia.

Senator BYRD. From acres sprayed, what is the difference?

Mr. ROBERTSON. Acres sprayed went from 83,000 to 85,000.

## RESEARCH AT MORGANTOWN

Senator BYRD. The budget also proposes to reduce funding for the other research projects in Morgantown by $307,000, or minus 73 percent.

What effect will this have on the development of new timber-harvesting systems and equipment to be used in steep terrain?

Mr. BURNS. This will have a negative effect. It will reduce personnel and also stop any field and new research. We will have the remaining scientists working on the results that they already have.

Senator BYRD. What will be the reduction in personnel?

Mr. BURNS. It will include six people.

Senator BYRD. Out of a total complement of?

Mr. BURNS. Out of a complement of nine.

Senator BYRD. So you are reducing it by two-thirds?

Mr. BURNS. That's correct.

Senator BYRD. How do you feel about that?

Mr. BURNS. The support for these projects was moved to the higher priority program at the Center at Princeton.

Senator BYRD. What effect will this proposal have on the ability——

Mr. BURNS. The funds were shifted to support higher priority projects like the Center at Princeton.

Senator BYRD. But the Center at Princeton is going to suffer.

Mr. BURNS. Not as much as it would have otherwise.

Senator BYRD. But it will suffer a cut.

Mr. ROBERTSON. That is true. We are cutting in both places.

Senator BYRD. What effect will this proposal have on the ability of the Forest Service to integrate timber sales activities with recreation activities in the same forest?

Mr. BURNS. There would be no continuing research in that area. The work that has been done to date will be written up and put into a form that will be usable by the managers.

Senator BYRD. Is there a continuing need for such research?

Mr. BURNS. Yes; there is.

Senator BYRD. How long has that research been ongoing?

Mr. BURNS. There are two engineering projects at Morgantown. The one on harvesting on steep terrain has been in place for a number of years. I cannot tell you when that started.

The engineering project for integrating harvesting with other land management uses and activities is about 3 years old.

Senator BYRD. Of the six personnel reductions, how would you allocate those reductions between those two programs?

Mr. BURNS. The allocation would be such that we would end up with one engineer, on each of the two projects, plus a secretary.

Senator BYRD. How long has the research program been going forward at Morgantown in connection with the equipment and systems used in steep terrain?

Mr. BURNS. Again, as I said, I'm not sure just when the starting date of that research was. It has been underway for a number of years.

Last year, we terminated the equipment development phase and are now concentrating on the application of existing equipment for steep terrain harvesting.

Senator BYRD. The other program has been going on for 3 years, I think you said.

Mr. BURNS. That's correct, yes.

Senator BYRD. Supply for the committee the number of years during which this program has been carried forward, and what effect will this proposal have on the ability of the Forest Service to integrate timber sales activities with recreational activities in the same forest?

Mr. ROBERTSON. We know a great deal about that now. There are still additional research opportunities. So, it will just slow down the marginal rate of increase in knowledge concerning how to coordinate recreation and road development with timber.

[The information follows:]

### FOREST ENGINEERING RESEARCH AT MORGANTOWN

This forest engineering research unit was established in cooperation with West Virginia University at Morgantown in 1964 to study problems in getting logs from the woods to the road. A few years later, a research laboratory was constructed there. Research at the laboratory has been concerned both with reducing logging and hauling costs, and reducing the impact of logging on the environment.

### INTEGRATED HARVESTING AND FOREST MANAGEMENT SYSTEMS

Senator BYRD. How much money is involved in this particular aspect of research?

Mr. ROBERTSON. In fiscal year 1988, I believe it is $282,000 for the unit working on integrated harvesting and forest management systems.

Senator BYRD. The overall number of staff reductions would be how many?

Mr. BURNS. Six.

Senator BYRD. Six out of nine. And to restore the six positions would cost how much?

Mr. BURNS. The reduction from the 1989 base to the President's budget is $90,000 plus $223,000—$313,000.

Senator BYRD. I would note in fairness that the budget proposes an overall increase of $281,000 or plus 6 percent for forestry research in West Virginia. And that is largely due, as you have indicated, to the proposed increase for gypsy moth research.

But, the other research issues are also important, including water quality, recreation, harvesting techniques for hardwoods.

The committee will review these proposals carefully and it is our intention to go forward with the kind of research that is needed. We think the Forest Service has been doing an exemplary job. We think the research is needed.

And I would suggest that, in the future, you very, very carefully consider the research programs at Morgantown, Princeton, and Parsons and step up your research there. There is the need.

Instead of cutting back, let's accelerate and intensify the research. It will mean increased refunding of tax dollars to the Federal Government or payback.

It will result in jobs and better utilization of the hardwood. It is too bad that we have to see the excellent hardwoods go into the production of mine timber. That is a waste of tax dollars. It is a waste of our natural resources.

I think we can do better.

Mr. ROBERTSON. We will take a hard look at that, Mr. Chairman.

Senator BYRD. Take a hard look at the hardwoods.

Mr. ROBERTSON. We will do that.

### GYPSY MOTH EXPANSION IN WEST VIRGINIA

Senator BYRD. Last year, I expressed concern about the rate of gypsy moth expansion in West Virginia and called on the Forest Service to increase the efforts to slow the spread of the gypsy moth into West Virginia, and to reduce the damage in areas that were infested.

To support those efforts, we provided $7 million in the 1987 supplemental appropriations bill, which would be in addition to the normal control program.

Now, you spoke of the progress you had made earlier. Was there anything that you would add at this point as you review the progress that you have made?

Mr. ROBERTSON. Well, as part of this effort that you helped initiate, we did set up the Appalachian gypsy moth demonstration project in which we have identified about 13.5 million acres in West Virginia and Virginia out in front of the advancing edge of the infestation.

Now, we have some isolated spots scattered out beyond this demonstration area, but we are putting a lot of work into this demonstration area not only to do research, but also to test various approaches to stop or slow down the advancing movement of the gypsy moth.

So, we have a major effort underway and it is a demonstration/experimental approach. We are going to throw everything we have into it to see if we can figure out how to slow the defoliation down or stop it.

Senator BYRD. Are you going to use all of the $7 million for additional spray?

Mr. ROBERTSON. No; a lot of it is for research. But, most of it is for working in that advance area out ahead of the gypsy moth, and for doing surveys.

What we're trying to do is learn how to keep a small population of gypsy moths in the demonstration area from getting out of hand and becoming a major infestation.

So, very little of this year's funding will be put into spray projects, but within the 13.5 million acres, if we end up with some infestations, we will certainly hit that hard.

Also there are some spray areas right up next to the area in northeast West Virginia that we will be spraying.

Senator BYRD. Will you be using the full $7 million?

Mr. ROBERTSON. I believe we will be using most all of it, except about $1 million, which would be left over to do treatments in fiscal year 1989.

Senator BYRD. Could you use it in fiscal year 1988?

Mr. ROBERTSON. We've got a bit of a problem in West Virginia. We think there is about 337,000 acres of potential defoliation or areas needing treatment.

Now, we plan to treat about 137,000 acres of this. We are paying 100 percent of the cost of the suppression out in front of or behind this demonstration area.

But the other 200,000 acres are on private land and the State of West Virginia just does not have the funding to match the Federal dollars to do the total spray job in West Virginia this year.

Senator BYRD. So the State will be required to match this spraying program?

Mr. ROBERTSON. Yes; under our State and private forestry program, the State or local governments have to come up with 50 percent of the cost.

Senator BYRD. And the State has not been able to provide this matching money to date?

Mr. ROBERTSON. It is my understanding that local government has come up with funds to spray about 64,000 acres, in addition to the 73,000 acres that we were going to spray. That leaves a balance of about 200,000 that the State has not come up with funding for, nor has local government.

Senator BYRD. $200,000.

Mr. ROBERTSON. No; 200,000 acres.

Senator BYRD. What is the shortfall on dollars?

Mr. WEST. The shortfall would probably be about $1.2 million for the 200,000 acres that would not be covered.

Senator BYRD. So the State would need to provide another $1,200,000?

Mr. WEST. That would be half of that; the State would have to come up with about $600,000.

Senator BYRD. How much has the State—you spoke of other entities that have provided matching money. How much has the State provided? Been able to provide?

Mr. WEST. They have cost shared on 64,000 acres, so one-half of that amount. They have come up with probably close to $300,000 from local government, county government primarily doing the cost sharing.

Senator BYRD. How much from the State government? Do you have figures on that?

Mr. WEST. To our knowledge, there is no State funding being made available for gypsy moth spray in 1988.

Senator BYRD. There is a shortfall at that end of $600,000?

Mr. WEST. Approximately, yes.

Senator BYRD. If the $600,000 were made available in fiscal year 1988, that would draw down $600,000 from the Federal.

Mr. WEST. We would need to match that, that's right.

Senator BYRD. Would that represent the full potential?

Mr. WEST. Our estimate is that we have a potential of 337,000 acres that could be defoliated. What isn't planned is 200,000 acres; $1.2 million would cover that.

Senator BYRD. I understand that some money will be provided directly to the States of West Virginia and Virginia for personnel, travel, office equipment, and so forth.

What are the States contributing to this effort?

Mr. West. Primarily, we are providing the funding for the AIPM project. The State of West Virginia will hire approximately 46 people to do the intensive survey, the placement of traps, and so forth.

And the money will be provided by this special funding.

Senator Byrd. In 1985, the gypsy moth defoliated 2,500 acres in West Virginia. In 1986, the number of acres increased to 8,250.

Does that square with your figures?

Mr. Robertson. Yes.

Senator Byrd. Last year at the hearing, you estimated that 1987 defoliation would total 100,000 acres.

Mr. Robertson. We were close; 12,000 acres were defoliated, but we treated 85,000, which would have been defoliated if we had not treated it.

So that would have added up to 97,000 acres.

Senator Byrd. What is your estimate for 1989? and 1990?

Mr. Robertson. Well, we are estimating in 1988, 337,000 acres of potential defoliation without any treatment. And could we say that is fairly representative of 1989, too?

Senator Byrd. That would be without any treatment?

Mr. Robertson. Yes.

Senator Byrd. So, what would the percentagewise—or numerically, what would be the reduction anticipated with treatment?

Mr. Robertson. Well, out of the 337,000 acres, right now, we are planning to treat 137,000 because we have matching funds for that amount, plus this demonstration project.

So that leaves a total of 200,000 acres that right now are not planned to be treated again unless the State of West Virginia comes up with their share of the cost.

Senator Byrd. The Service has to complete a new environmental impact statement before an accelerated program can be implemented.

Is that essentially correct?

Mr. Robertson. Yes.

Mr. Leonard. There are major elements of the accelerated program that can be done under the existing environmental impact statement. However, there are some additional treatments that we want to try under the experimental program that are not treated by the existing program.

Senator Byrd. When will the new EIS be completed?

Mr. Robertson. Our schedule is to have the draft EIS in October of this year, and the final EIS by March 1989.

Senator Byrd. When would you need to begin spraying in 1989 in order to control populations as might be assumed would be called for in the plan?

Mr. West. That would be probably late April and May 1989.

Senator Byrd. What happens to your accelerated program if the EIS is delayed a few months? Does that mean that you miss the opportunity to spray in 1989?

Mr. WEST. The majority of the work can go ahead in 1989. It is just a very limited amount that is not covered by programmatic EIS.

Mr. ROBERTSON. An example is wilderness areas. The existing EIS does not cover spraying in wilderness areas. The new EIS would cover that.

Senator BYRD. Is there a need to accelerate the preparation of the new EIS?

Mr. WEST. We do not feel it is necessary to accelerate it. It is fairly difficult under the National Environmental Policy Act to accelerate it much more quickly. We feel comfortable that we will have a decision notice by March 1989.

Senator BYRD. I have certainly taken a good bit of time and I have some colleagues here. I want to thank you.

I do have some further questions.

Chief, I want to thank you for your presentation. And, you, Dr. Burns. And I commend you for the work that you are doing.

But, to put the needle in you a little bit, with respect to those labs that need that additional money, additional research, if we are going to provide the stimulus to the economy that can be provided as a result of this good work the Forest Service can do.

So we will be talking with you further and I will be pressing to restore those moneys. And I'm sure you will make good use of the moneys if that can be done.

Mr. ROBERTSON. We have a good crew in West Virginia. I think we're doing some great work there.

Senator BYRD. And I do not want to see it lessened. I don't want to see your crew taken out and sent somewhere else.

### TIMBER OFFER LEVEL

Senator MCCLURE. Thank you, Mr. Chairman. I would like to ask a general question about the evolution of volume offered from the fiscal 1988 request through the final appropriation act. I will use region 4 as an example.

In the President's fiscal year 1988 request, when it was presented to Congress, there was a program of 365 million board feet for region 4. In fiscal year 1988, it was increased to 390 million board feet.

Is the percentage of sawtimber into 365 million board feet request the same percentage included in the final appropriation action of 390 million board feet?

Mr. ROBERTSON. It is about the same.

Senator MCCLURE. How does the Forest Service track these figures on a national basis?

Mr. ROBERTSON. We track the amount of sawtimber harvested in our annual reports as it is harvested from each timber sale and we have that summarized.

Senator MCCLURE. From the sales?

Mr. ROBERTSON. Yes.

Senator McClure. Does the Forest industry agree with the assessment?

Mr. Robertson. Well, that is a lot of discussion between us, whether we go on cubic feet, board feet, cords and what makes a sawtimber, a saw log versus other products.

So I wouldn't say that we have got everybody in total agreement. We understand each other.

Senator McClure. You understand the difference?

Mr. Robertson. We do understand the differences.

### MINERALS

Senator McClure. You requested an increase in minerals of $342,000 in fiscal 1989 for the leasable mineral program.

The case load for fiscal year 1989, however, is expected to decrease slightly by 58. It is virtually stable—11,351 in fiscal 1989, and 11,409 in fiscal 1988.

The increase in unit cost is attributed to the greater proportion of complex cases.

Is there a particular reason the cases are more complex?

Mr. Robertson. Well, the ninth circuit court is a big reason for the complexity. We keep getting more and more decisions out of the ninth circuit that keeps interpreting the National Environmental Policy Act to be more comprehensive in analysis in looking at the environmental effects. It just keeps running the cost up.

If we're going to stay in business in minerals, as far as that goes, timber and other things as well.

Senator McClure. You find that different in the ninth circuit than other places?

Mr. Robertson. Yes; we have more court cases there. Our track record is not nearly as good.

Senator Hatfield. Would you yield a moment?

The ninth circuit track record on appeal to the Supreme Court of the United States is not very good either.

Senator McClure. But that runs the cost up, too. [Laughter.]

Mr. Robertson. For example, we have this recent court case in the ninth circuit on oil and gas leasing which basically says we have to have an environmental impact statement on oil and gas lease, looking at what might be total development on that lease.

With less than 5 percent of them where we have an oil well drill, that really puts us in a box.

Senator McClure. You requested an increase of $1.2 million in the locatable minerals program. The caseload is expected to increase by 50 percent and that is 6,735 cases in fiscal 1988 and 9,987 cases in fiscal 1989.

And it is attributed to the upturn in activity in precious metal operations.

Can you really handle such a large increase in the caseload with such a small programmatic increase?

Mr. ROBERTSON. I think we can manage it. Like any program, we have a large fixed cost with organization and all the things that go with it.

So, all of those additional dollars will go directly toward processing those cases. So I think we can manage it.

Senator McCLURE. You're not afraid you're going to find out a year from now that you dropped behind?

Mr. ROBERTSON. That's always possible. It is a conservative budget, but we are willing to go with it and believe we can manage it.

Mr. LEONARD. The estimate of the number of cases is just that.

Senator McCLURE. But there is an increase in precious metals operations.

Mr. LEONARD. Yes; gold operations in particular.

### COOPERATIVE LAW ENFORCEMENT

Senator McCLURE. The cooperative law enforcement program is another program where I compliment your fiscal year 1989 proposal.

This program is broken down into two separate parts. For the cooperative program, you have requested an increase of $1.4 million, a 17-percent increase, while you have requested level funding for the National Forest Service drug control program.

The increase for the cooperative program is to restore underfunded cooperative agreements for State and local law enforcement agencies, and to protect existing Forest Service visitor use areas.

Will the increase for the cooperative program completely fund all of the cooperative agreements?

Mr. ROBERTSON. We have 436 agreements, so I am not sure if this will fund all agreements 100 percent. But, as you point out, that is an increase of about $1.4 million. And I think that is reasonably in line with the extra cost incurred by the State and local governments in providing protection on the national forest.

So I think that is a reasonably good figure.

Senator McCLURE. Would you provide for the record what additional amounts may be necessary to fund those agreements in full?

And, second, provide for the record a State-by-State breakdown of fiscal year 1989 requests, and a State-by-State breakdown of required funding for the cooperative agreements?

Mr. ROBERTSON. Yes; we will be happy to provide a State-by-State breakdown.

But, Senator McClure, those agreements are more of a mechanism that we use to reimburse the State and local government for the added costs.

Trying to figure out what 100 percent financing is is a little difficult.

Senator McCLURE. I understand that. But, I understand also that there is an uncertainty because of that.

And can you do the best you can because, obviously, if it took a big increase to adequately fund them, before that time, there was probably some underfunding.

Mr. ROBERTSON. Yes; and we have been worried about that. And that is the reason that you see an increase in our budget this year.

[The information follows:]

### COOPERATIVE LAW ENFORCEMENT

The following table projects our best estimates of needs of the various counties within the States where cooperative agreements exist. The agreement is a mechanism used to develop operating plans to provide reimbursement to counties for added costs. Since operating plans will not be developed in final until fiscal year 1989, these figures are subject to change at the time the plans are consummated.

| State | Visitor protection | | Cannabis | |
|---|---|---|---|---|
| | Number of cooperative agreements | Dollars | Number of cooperative agreements | Dollars |
| Alabama | 7 | $46,000 | 3 | $20,000 |
| Alaska | 1 | 47,000 | | |
| Arizona | 16 | 303,000 | 10 | 60,000 |
| Arkansas | 24 | 109,000 | 17 | 70,000 |
| California | 40 | 1,246,000 | 28 | 726,000 |
| Colorado | 40 | 344,000 | | |
| Florida | 3 | 119,000 | 3 | 63,000 |
| Georgia | 10 | 127,000 | 1 | 60,000 |
| Idaho | 7 | 218,000 | 17 | 90,000 |
| Illinois | 8 | 57,000 | | 10,000 |
| Indiana | 4 | 25,000 | 1 | 13,000 |
| Kentucky | 12 | 77,000 | 6 | 42,000 |
| Louisiana | 7 | 48,000 | | |
| Maine | 1 | 16,000 | 1 | 1,000 |
| Michigan | 17 | 94,000 | 9 | 10,000 |
| Minnesota | 8 | 108,000 | | 30,000 |
| Mississippi | 5 | 39,000 | 2 | 10,000 |
| Missouri | 20 | 40,000 | 2 | 10,000 |
| Montana | 30 | 212,000 | 9 | 35,000 |
| Nebraska | 3 | 5,000 | | |
| Nevada | 5 | 48,000 | 6 | 10,000 |
| New Hampshire | 4 | 57,000 | 3 | 9,000 |
| New Mexico | 13 | 376,000 | 10 | 50,000 |
| New York | 1 | 2,000 | | |
| North Carolina | 14 | 120,000 | 12 | 50,000 |
| North Dakota | 6 | 31,000 | | |
| Ohio | 5 | 47,000 | 7 | 11,000 |
| Oklahoma | | | 1 | 8,000 |
| Oregon | 21 | 643,000 | 18 | 318,000 |
| Pennsylvania | 4 | 45,000 | 1 | 5,000 |
| Puerto Rico | 1 | 18,000 | | |
| South Carolina | 3 | 23,000 | 3 | 10,000 |
| South Dakota | 7 | 53,000 | | |
| Tennessee | 8 | 67,000 | 7 | 32,000 |
| Texas | 6 | 65,000 | 1 | 45,000 |
| Utah | 26 | 367,000 | 13 | 22,000 |
| Vermont | 4 | 24,000 | 2 | 5,000 |
| Virginia | 8 | 88,000 | 1 | 45,000 |
| Washington | 9 | 536,000 | 7 | 100,000 |
| West Virginia | 6 | 29,000 | 2 | 10,000 |
| Wisconsin | 9 | 44,000 | 4 | 20,000 |
| Wyoming | 13 | 57,000 | | |
| Totals | 436 | 6,020,000 | 207 | 2,000,000 |

## FOREST ROAD SYSTEM

Senator McClure. The justification indicates that 6,500 miles of existing roads not previously included in the forest development road system are being added to the system in fiscal year 1989.

How were those roads classified in fiscal year 1988?

Mr. Robertson. They were simply wood roads or old mining roads that were out there on the national forest that really were never inventoried and were not a part of our transportation system.

A lot of them were there when these lands became national forests, or just evolved over the years.

Now that we have done the land management plans and looked at the overall transportation needs to access the national forest, we need some of those roads.

So, we added them to our transportation inventory.

Senator McClure. As a matter of fact, some of those roads that were there were included in areas that were classified as roads for wilderness study, weren't they?

Mr. Robertson. There were some of those.

Senator McClure. Even though the roads were there and had been there for many years?

Mr. Robertson. Yes.

Senator McClure. I found one of those in Idaho. You're requesting money to maintain a road that your map showed did not exist.

I went out and looked at it.

Mr. Robertson. I guess they kind of evolved. They were not roads where we put money, appropriated money to construct.

## ROAD MAINTENANCE

Senator McClure. The reason you wanted that money in this particular case was to keep the silt out of the fork in the South Salmon River. Somebody put a lot of money into it at some time.

I might get a little trouble. In the Idaho wilderness bill in response to a question for the record at last year's hearing, the Forest Service indicated that an additional $33 million in annual road maintenance appropriations was needed to prevent further deterioration of roads and to accommodate existing traffic demands.

Responding to this need, Congress appropriated an additional $20 million in this program; for fiscal year 1989, however, you have proposed a decrease of $17 million, or a 20-percent cut from the fiscal year 1988 level.

Does this need for additional funds and road maintenance still exist?

Mr. Robertson. Yes; it does. But, like all other programs, it is a matter of priorities. The decisions made in the early formulation of the 1989 budget were made prior to the time that we knew what Congress was going to do in fiscal year 1988.

We sustained a little bit of that increase, but not very much, as you point out.

Senator McClure. How have you gone about assessing how much cheaper maintenance is compared to reconstruction?

Is that a road by road analysis?

Mr. Robertson. Yes.

Senator McClure. Do you in every instance look at that difference?

Mr. Robertson. I would not say we look at it in every instance. We have not looked at it on a national basis in terms of the tradeoff between additional maintenance to try to avoid major reconstruction later on. But that is certainly happening, and we do look at it in local areas, road by road, or sometimes on an individual forest basis.-

Even after looking at it, you have to balance your priorities for what money you've got available to spend.

Senator McClure. Would you benefit and could we benefit from a national analysis, looking at it on a national basis on that kind of a policy choice?

Mr. Robertson. I think that would be good information to have.

Senator McClure. Would you provide for the record an estimate of what it might cost to undertake such a study?

Mr. Robertson. We would be happy to do that.

[The information follows:]

### ROAD MAINTENANCE VERSUS RECONSTRUCTION

We estimate that a broad based study with general conclusions and recommendations would cost approximately $500,000. A more detailed and comprehensive study with specific conclusions and recommendations is estimated to cost approximately $1 million.

### TRAIL MAINTENANCE

Senator McClure. In fiscal year 1987 there were 20.4 million recreation visitor days spent hiking and horseback riding on national forest trails.

This is an increase from the fiscal year 1986 level of 12.9 million.

In fiscal year 1988, the Congress increased the budget for trail maintenance from $11 million to $20 million. For fiscal year 1989, the administration has proposed $15.6 million for trial maintenance, a 22-percent reduction from the appropriated level.

This includes $500,000 for a challenge cost-share program. While your request is below the fiscal year 1988 enacted level, it is an increase over your fiscal year 1988 request.

I appreciate your effort. What is the minimum funding level necessary to keep pace with the increased trail use?

Mr. Robertson. As you point out, our 1989 budget does represent a significant increase over what we requested in 1988 and I think that is a good minimum level to maintain the trail system.

Now, we have also made some progress or rehabilitating these trails and catching up on deferred maintenance. We are making good progress as a result of funding that has been provided by the Congress.

We have reduced that backlog by about $11 million in 1988 and this budget will take another $11 million off the backlog.

Senator McClure. You mean of the $15 million that you have requested, $11 million goes for the backlog and only $4 million in maintenance of the others that are not in the backlog?

Mr. Robertson. We have a rather large trail reconstruction budget, so the two are put together.

Senator McClure. All right. The challenge cost-share program is extremely popular, and we provided additional funds in 1988 for this pilot project.

Mr. Robertson. Yes; we had $500,000 in 1988 and this budget includes $3 million. So it is a sixfold increase. That is a very successful program. We are very pleased with it.

## VOLUME UNDER CONTRACT

Senator McClure. Let's turn for a moment to volume under contract. In this hearing during the past couple of years, you have indicated that 2 to 3 years of volume under contract is an acceptable amount for a national total.

Regional numbers may vary slightly from those figures. In a recent publication, the Forest Service indicates that 2 years of volume under contract is desirable.

Is this decrease a shift in policy?

Mr. Robertson. No; it is not really a shift in policy. I have described it this way. Two years is about the absolute minimum and it is desirable to have somewhere around 2½ to 3 years.

Senator McClure. If we fall below that minimum, what happens?

Mr. Robertson. The timber industry would have less certainty about their timber supply. And you have to look at it. We have got so many different companies out there, even though we may have 2 years under contract now. There are some companies that don't have very much at all. And there are others that have over 2 years.

So we are getting, in some places, dangerously low from the timber industry standpoint in the timber under contract.

Mr. Leonard. It is important to understand that most of our sales in the Western United States require road construction and so a large share of that 2-year period, at least the first season is spent building the roads.

So, in effect, if you have 2 years under contract, you only have about 1 year of assessable volume available.

Senator McClure. Can you provide for the subcommittee the forests where the amount of volume under contract is a serious concern?

Mr. Leonard. Yes.

Senator McClure. During the late 1970's, National Forest Service timber was sold at high prices based on an anticipated high level of housing construction and continued inflation that never materialized.

As a result, many sales became highly unprofitable for purchasers to operate. Subsequently, enactment of the Federal Timber Contract Payment Modification Act provided those purchasers the opportunity to buy out their own unprofitable contracts.

Timber sale purchasers returned 9.7 billion board feet of national forest timber under this law. This returned timber has been reoffered in an orderly fashion. And, in fiscal 1989, you have proposed 1 billion board feet of reoffer volume.

This is a decrease from the fiscal 1988 level of 2.7 billion board feet. To keep the total volume offered at 11.2 billion board feet, the amount of new offer volume will increase from 6.5 billion board feet in fiscal 1988 to 9.1 billion board feet in fiscal 1989.

This increase and new offer volume will also offset an expected decrease in the amount of salvage volume. The budget request for sales preparation is only 6 percent above the fiscal year 1988 enacted level.

Does this budget contain enough funds in fiscal 1989 to sustain the new offer volumes for the out-years? Recognizing that this is a multiyear process, it doesn't all occur in 1 year.

Mr. ROBERTSON. We are in trouble on the west coast, particularly California and, to a lesser degree, in the Pacific Northwest. And I would like to explain that.

There are just a lot of things happening, as we already talked a little bit about, in minerals, but in timber that is just piling on top of each other, that is further delaying, further complicating and increasing our cost of producing timber.

First, particularly California, we had the fire situation last year. We lost the month of September, and a little bit of August in the ability of our field-going crews to do timber sale preparation because they were all fighting fires. In fact, we had about one-third of the total Forest Service organization fighting fires last September.

Consequently, we did not get some of the advanced timber sale work done in the Forest Service. That brings up another point I wanted to make, if these are annual funds. We ended up closing out the year and the people were fighting fires.

We left about $13 million on the table, because we didn't get the work done. We lost the money. That has kind of backed us in a corner.

Because of the salvage sale situation, again, particularly California and, to a lesser degree, Oregon, we're putting all of our efforts into those salvage sales and are not able to move on the advanced timber sale preparation for out-years.

Look at the appeals we are having. We are overwhelmed with appeals on timber sales. Look at the lawsuits we are having. We just had another ninth circuit decision 2 weeks ago, which basically said we needed an EIS looking at cumulative effects on the Sequoia National Forest.

So, quite frankly, we are going into fiscal 1989 in the worst shape we have ever been in California, and, again, to a lesser degree, in region 6, in terms of the advanced timber sale preparation.

We are really going to have to make a monumental effort to catch up. I guess, if you look at the next 2 or 3 years, and sales are in the pipeline for up to 5 years, if you look at the amount of advanced timber sale preparation work that we now have done and will get done this fiscal year in relation to the norm, we are running probably 1 billion board feet behind what is normally in the pipeline.

We are going to have to make a monumental effort to catch up. We have got to cross our fingers that we don't have another fire season that drains away our timber crews off of advanced timber sale preparation to go fight fires.

That is one reason we badly need 2-year funds in the Forest Service in case we get into that situation, so that we can still have the dollars to get the job done.

### TIMBER SALE APPEALS

Senator HATFIELD. If the Senator would yield?

Senator McCLURE. I would be happy to.

Senator HATFIELD. I'm going to have to go, Mr. Chairman, to preside at another subcommittee meeting. But I would like to leave some questions to be submitted for response. But when you make comments about California and the Northwest, I would like to ask you one question, if I could, as to the volume of sales in terms of region 6.

We have over 200 appeals on resale of timber that had been returned to the Forest Service under the Timber Contract Relief Act of 1984—over 200 filed at one time.

If you begin to analyze the volume factors, Oregon is probably the hardest hit of all of the States because we are the largest producer. We have over 63,000 people whose direct employment is from timber production. The indirect employment would quadruple that.

But, from the volume and percentage volume, is that not true?

Mr. ROBERTSON. Yes; it is.

Senator HATFIELD. There, again, is the national impact on housing materials as we are the largest producer of any State of timber products; with over 50 percent of our State owned by the Federal Government, this hearing today is probably more important than any agency hearing affecting the State of Oregon that we have around here.

I appreciate the opportunity to interrupt my colleague.

Senator McCLURE. No interruption. It was an addition.

Senator HATFIELD. I will let you carry on on that line, and then I will go to preside at another meeting.

Senator BYRD. Senator Hatfield's questions and the responses will be included in the record.

Senator McCLURE. Senator Hatfield, I appreciate the questions. They are not just Oregon questions, they are certainly regionwide, if not nationwide, in their impact.

### FIRE REHABILITATION

Mr. ROBERTSON. A final point is the committee did ask the Congress that we have a report up here on the effects of the fire salvage situation. That is being reviewed within the administration, and I hope to have it within a week. This will lay out the situation that I just described, and what we need to do to get back on track.

Senator McClure. What many people forget is that these are multiyear programs. The money you spent in fiscal 1988 isn't just fiscal year 1988 impact. What you spend in 1989 will have impact on sales through 1991 and 1992. Certainly, the same thing is true with the roadbuilding programs.

They are not single-year impacts. They impact future programs. And I guess I had mixed emotions when you responded by saying:

"We're in trouble."

Because I hate to hear you say that and, yet, it has to be said. It has to be said loudly enough and often enough that people will hear.

So I appreciate your comment. I'm sorry you had to make it.

Mr. Robertson. I am, too. We have talked a lot about this within the Forest Service and our people are making that extraordinary effort and we're going to keep making an extraordinary effort.

But, at some point, these cumulative things, we're getting hit hard about cumulative effects on the environment, which is very valid. But there's also cumulative effect happening when you add all of these things up on our program.

Senator McClure. I don't suppose there's any way to calculate the total dollars that are being spent because of delay, because of all the requirements of the ninth circuit and other similar requirements with respect to studies and delays, additional impact statements and cumulative effects.

And all of the rest of it. But, it is a massive amount and it is not reflected in the increase in your Forest Service operating budgets.

That I guess is a major concern that you would have. It is a major concern that I have. Not only the total cost, but the fact that you're not getting the money in order to do it.

Mr. Leonard. It is reflected in the drop of the volume that is prepared and on the shelf and, therefore, reduction in our flexibility to respond to fire salvage or appeals and things.

Senator McClure. It also has a big effect on gross receipts.

Mr. Leonard. Sure, it does.

Senator McClure. And that has an effect on revenues for local governments as well as through the Federal; the cumulative effect, if I can dare use that term, in economic terms, is a very, very, very large dollar figure.

Mr. Robertson. Yes; it is.

## SALES VERSUS HARVEST

Senator McClure. I want to ask one other question in this same vein.

There are a variety of factors that should be used to determine the amount of timber that should be offered every year, the amount of imports, the anticipated demand for wood products, the amount of volume under contracts, a whole lot of others. A particularly meaningful measure was discussed at last year's hearing and compares the 3 previous years of harvest volume to the 3 previous of offer volume.

In response to a question for the record at last year's hearing, the Forest Service indicated that the offer volume should exceed the harvest volume by one-half to 1 percent over a 3-year period.

I'm not sure you said it should, but I think you compared it and that was the range. And you indicated that was an appropriate range, you thought. One-half to 1 percent, according to your response, from the 1985 to 1987, the offer volume totaled 34.4 billion board feet and the harvest volume was 34.2 billion board feet.

The differential is one-half to 1 percent, an acceptable level according to your measurements.

This year's justification, however, indicates that, for 1986 to 1988, the offer volume would be 34.7 billion board feet and the harvest volume will be 36.3 billion board feet for the same period.

During this time period, the offer volume will be below the harvest level by 6 percent. In fact, if we were to use this measure as our only calculation for the fiscal year 1989 offer volume, we should offer at least 12.9 billion board feet.

Do you no longer feel that volume should exceed harvest for any period of time?

Mr. LEONARD. Senator McClure, obviously, the sales program and the harvest levels have to be balanced over time.

The implication of our response last year was that when the harvest and sale program are within one-half percent, they are effectively in balance. We have gone through a period of 5 years of very strong markets, an almost unprecedented period of time with 1987 representing record harvests of national forest timber.

For the first half of 1988, we are proceeding at the same, essentially the same level as 1987, so it looks like 1988 will be another record year.

That is, given our sales levels, the volume under contract has been down to dangerously low levels. It would be very difficult for us to sustain a continuation of these harvest levels without an upward adjustment of the sale program.

And I would note that these harvest levels are well within the sustained yield levels provided by our system plans.

Senator MCCLURE. The harvest levels are not above prudent management practices.

Mr. LEONARD. That is correct.

Senator MCCLURE. So, the offer volume is going to have to increase or you are just building in a problem for the future?

Mr. LEONARD. We would run out of wood to cut.

Senator MCCLURE. What happens then?

Mr. LEONARD. The mills would close.

Senator MCCLURE. The prices would get bid up? We would go right back into the 1970's.

Mr. LEONARD. We have been tracking these for the last 5 years. The relationship between the value of the timber being sold and the value of timber being harvested has tracked very closely, which suggests that there is not much speculation in the bidding.

However, if you look at the last year, particularly the last 6 months, in our competitive area, that balance is shifting and the price of timber being sold in western Oregon and Washington, for example, is running about $50 higher than the actual price of the timber that is being harvested.

It would suggest that there is some anticipation of a future market forest shortage affecting the bidding levels.

Senator McCLURE. Maybe we can put it in another way. You would run into trouble unless there is a downturn in harvest levels.

Mr. LEONARD. Yes.

Senator McCLURE. That would mean that either there are significant changes in housing markets in inflation rates that might induce that, in log exports from non-Federal lands.

There has to be something that reduces the harvest levels, or we are building ourselves a problem for the future.

Mr. LEONARD. That is correct.

Senator McCLURE. Does your budget request contain adequate funding to prepare and sell the ASQ for each national forest with an approved national forest plan?

Mr. ROBERTSON. Overall, we are about 90 percent of the ASQ nationally.

Senator McCLURE. You are about 10 percent below?

Mr. ROBERTSON. Yes; and that would vary by national forest, too.

Senator McCLURE. Are some regions in worse shape than others?

Mr. ROBERTSON. On timber under contract, yes.

California is probably the worst situation.

Senator McCLURE. I have a number of additional questions I would submit for the record for a response in writing.

Senator BYRD. All right, Senator McClure, your questions will be submitted. And answers, responses will be submitted.

Senator Stevens.

Senator STEVENS. I, too, would like to submit some questions for the record. I have a couple I would like to present here today, this morning.

### TONGASS NATIONAL FOREST

In 1979, the Tongass became the first national forest to have a management plan under the National Forest Management Act of 1976.

Now, I understand that—I know that—you are beginning the process of revising that plan, which will govern the operation of our largest forest into the next century.

Have plans for all of the other forests been completed now?

Mr. ROBERTSON. Out of the 123 national forests, we have 84 completed.

Senator STEVENS. Is it premature to be starting a revision now of the Alaska plan, the Tongass plan, before the others have a management plan?

Mr. ROBERTSON. I don't think so. The National Forest Management Act says we ought to revise these plans every 10 to 15 years, and so 10 years would be up on the Tongass in 1989.

Senator STEVENS. It was the first to have a plan, and it is going to be the first to have a revised plan in the shortest period of time to be applied to any forest.

I wondered why that is the case.

We all know the attacks it is under. I wonder if this is really fair to try to plan for the next century on the basis of the period of time the Tongass has been under such intense attack and is still under intense attack.

I'm not sure that we can make some decisions based on the experience of the first 10 years, during which, contrary to the south 48, the Tongass has not been in very good shape financially, that is, until the last 2 years.

Have you considered that?

Mr. ROBERTSON. We have given a little thought to it, but our plans are just not based on what actually happened in the past. They should be based on our projection of what is going to happen in the future.

So, these plans ought to be futuristic-oriented, not backward-oriented.

Senator STEVENS. That's true, but Congress did not agree with you. It put the levels of harvest on the Tongass under the Alaska Lands Act of 1980 based totally upon the immediately preceding 3 years.

Those were the lowest 3 years in the recent history of the Tongass. So we had a 4.5 billion board feet production guaranteed. But, at the same time, it was a ceiling and a floor for the coming 10 years.

Now it is my understanding that, in the beginning 5 years of that period, 1981 through 1986, the production didn't meet even that low level.

Now we're under attack because the demand is going up and the forest is starting to produce, at least to the minimum level. Most people don't realize that 1980 act set an absolute limit on future expansion of the timber industry in southeast Alaska. It could not be any greater than it was in the preceding 3 years. And that is a permanent limitation.

So, what I'm really asking—I have the feeling that it is untimely, to plan for the 21st century, on the basis of this very difficult period we have just been through.

I would urge you to reconsider that time schedule.

Has this revision process been affected by the 1988 funding levels? That is another question that I have.

Mr. ROBERTSON. I would ask Mike Barton, our Regional Forester, to answer that.

Has the funding level on the Tongass affected our schedule on the land management plan?

Mr. BARTON. The reduction to the $50 million level did not affect the schedule. The further reduction from $50 million to $45 million did affect it slightly.

Senator STEVENS. That is another one of my worries. At a time when Congress is putting a lower and lower ceiling on the operation of the Tongass, to take substantial moneys for the process of preparing the first revised plan may be counterproductive to keeping the production schedule up in this period we are in right now.

Mr. BARTON. We are doing our best to proceed with the plan revision and at the same time prepare the timber program that Congress is directing us to prepare. We are doing it.

Senator STEVENS. Do you have any feeling about how the proposed budget that is before the subcommittee now will affect the revision process?

Is it going to reduce it down even further?

Mr. BARTON. No, sir; the present budget will not. It will keep it on track for completion in December 1989.

Senator STEVENS. Between 1980 and 1987—this is since we did get the Lands Act settled—we have had some cooperative efforts between the Forest Service in our State. We have had 74 fisheries habitat improvement projects.

Those projects, the State tells me, have increased salmon production by an estimated 7 million pounds per year. And that continues.

And that is a structural change in production. However, this budget cuts anadromous fish habitat improvement by $2.341 million for 1989.

Can you tell me have you decided how that will be allocated? How was it allocated to Alaska, for example? How much of that cut will go to Alaska?

Mr. ROBERTSON. Can you tell us how much reduction in region 10?

Mr. BARTON. The reduction in region 10 between wildlife and fisheries dollars together, will be about $1 million. I cannot separate them between wildlife and fish. The 1989 program does provide for an increase in enhancement of about 250,000 pounds annually.

Senator STEVENS. We see that there's going to be a precipitous drop in habitat improvement funding under this 1989 budget. And this is notwithstanding the fact that the Pacific Salmon Treaty puts on us a strange limitation. I'm sure you all know that we agreed with Canada that we would only allow Alaskan fishermen to increase production by the extent to which we structurally increased salmon stocks.

And you control, the Forest Service controls, for all intents and purposes, 98 percent of the land that is available for that type of habitat improvement, and to restore barren fishruns in southeastern Alaska.

I seriously question whether it is consistent with the commitments that were made under the Pacific Salmon Treaty not to keep up this anadromous fish habitat improvement program.

Do you have—someone told me you have a 5-year plan now. Is that right? Is it a 5-year plan on the Tongass, too?

Mr. BARTON. The planning on the Tongass is part of the fisheries planning required by the Alaskan Land Act. It is done in conjunction with the State of Alaska and the Agriculture associations and incorporated into the Tongass land management plan.

Senator STEVENS. I know I'm getting into difficult problems here, but how much money did you request for anadromous fish planning for the Tongass for 1989?

Mr. ROBERTSON. I don't have that. We will have to get that for the record.

[The information follows:]

### ANADROMOUS FISH PROGRAM ON THE TONGASS

The 1989 agency request for the wildlife and fisheries management program on the Tongass National Forest was $3,400,000. This included $2,600,000 for the anadromous fisheries program.

The 1989 President's budget for the wildlife and fisheries management program on the Tongass National Forest is $2,506,000. This includes $1,228,000 for the anadromous fisheries program.

### RESTORING FISHRUNS

Senator STEVENS. I think this is one of the most significant areas where the Forest Service made a substantial contribution to salmon production by restoring and improving these fishruns.

My colleagues will be interested in the fact that the Japanese for years were over-fishing the waters right off Alaska. And now that we've gotten them out of that 200-mile limit, we have the possibility of restoring these fishruns.

But, many of the streams are absolutely barren now. They don't produce any fish at all. We have had staggering success in the 74 cooperative projects you have worked on so far.

It appears that we could, if we really wanted to put our mind to it, double the production of salmon. And under the treaty, we can increase our harvest by the extent to which we increase the salmon production of the individual streams.

I think we are shooting ourselves in the foot.

Mr. ROBERTSON. I think we're putting a lot of money in hatcheries to increase the production of salmon. I am not sure it is not cheaper to do it through natural habitat.

Senator STEVENS. You have hatcheries elsewhere. You don't have any in Alaska that I know of that you're running.

We run a couple—the Indian one and one State project. But, other than that, there are these annual projects. These are annual projects. I don't know if you understand that. They go in annually and put in the mechanisms to increase the production and to the extent they work, you go back the next year, put in another one and you're structurally building up the production of that stream.

I would urge you to reconsider if there's any way at all. And I would like to have the amount that you did request.

I have some other questions about that. The number of employees affected by this budget, and how it will affect your timber sales and future sales.

I will submit those for the record.

I'm pleased to see you here.

I want you to know, Mr. Chairman and Senator McClure, that the Forest Service has great standing in my State, their ability to work with our State in a cooperative way and to try to keep in balance the opposing interests.

One of the opposing interests is, in fact, the fishermen, who I think are blaming the harvest of timber for the lack of salmon; where it is really a failure of the streams to produce the salmon in the first instances, in most cases.

And these enhancement programs could alleviate some of that collision between the timber industry and the fishing industry in southeast Alaska.

Thank you very much, Mr. Chairman.

Senator BYRD. Thank you, Senator Stevens. And your remaining questions will be submitted to the Forest Service. And the Forest Service will respond for the record.

### TIMBER HARDWOODS

If I may just ask a few questions concerning the increased use of hardwoods for timber bridges, I understand there are several thousand steel and concrete bridges currently in place on the public highway system that need replacement now, or will need replacement in the next few years.

In the Forest Service's judgment, many of them, they would be replaced with hardwood timber bridges?

Mr. ROBERTSON. Yes; we have done a lot of research on that. We believe it is practical to replace many of the steel and concrete bridges with wood and at less cost.

We need to do some demonstration work. We need to do some additional technology transfer. And, in fact, we plan this next fiscal year to put in some demonstration bridges on the national forest made out of treated wood.

And we hope that we can use this as a major market for the eastern hardwoods.

Senator BYRD. Will you be doing some of that in West Virginia?

Mr. ROBERTSON. Yes; we have two demonstration bridges planned for the Monongahela National Forest.

Senator BYRD. Where are they located?

Mr. ROBERTSON. In the Cranberry area.

Senator BYRD. Both in the Cranberry area, Mr. Page?

Mr. PAGE. They are both on national forest land in Cranberry. But there will also be one, a State bridge, down near Charleston.

Senator BYRD. You don't know precisely where?

Mr. PAGE. No.

Senator BYRD. Do you know precisely where? You do not?

Mr. PAGE. No, sir.

Senator BYRD. This is Jim Page, Supervisor of the Monongahela National Forest.

Thank you, Mr. Page.

Now I reiterate my interest in helping to diversify the economy of West Virginia and the region. And it seems to me that this is another way to help. Would you agree with that?

Mr. Robertson. Yes; I would.

Senator Byrd. Is the technology for building wooden bridges well-enough known? Or is there a need for lengthy and time-consuming research?

The way you answered my earlier question, I gathered that your research is pretty far along and you're ready to enter into the demonstration projects.

Mr. Robertson. Yes; the research is well along. There may be some additional research but, basically, we have done the research. And our next big project is to work with the Association of Highway Engineers and others to get the stress values into the bridge specifications and the design criteria.

And that is an effort where I think that we need to make a big major push this year and get this well-known throughout the engineering community.

Senator Byrd. Mr. Page, with respect to the two bridges that you referred to earlier, one in the Cranberry Glades area——

Mr. Page. Along the Cranberry River, Senator. There will be two down there.

Senator Byrd. And one in the Charleston area?

Mr. Page. Yes, sir; that is an additional one.

Senator Byrd. That is the second one?

Mr. Page. No, sir; that would be a third one.

Senator Byrd. That would be a third one.

When do you anticipate going forward with these?

Mr. Page. The two in the forest will be done this spring.

Senator Byrd. And the one in the Charleston area?

Mr. Page. I think it will be done this spring, too.

Senator Byrd. I didn't get your answer.

Mr. Page. I think the one in the Charleston area would be done this spring. I believe that is correct. I know that the two in the forest will be done this spring.

Senator Byrd. What is the approximate cost of these three bridges, using hardwoods?

Mr. Page. I don't have that number.

Mr. Robertson. We will have to supply that for the record, Mr. Chairman.

[The information follows:]

### Timber Hardwood Bridges

The demonstration bridge being constructed by the State is located on the northern city limits of Charleston, WV. over Elk Two-Mile Creek on Barlow Drive.

There is one hardwood bridge and there are also two softwood bridges to be constructed on the Monongahela National Forest. These three bridges plus the State bridge in Charleston make a total of four bridges being built in West Virginia, three on national forest lands.

Two of the bridges are 13 feet wide by 29 feet long, and their cost is estimated to be $32,000 (softwood) and $41,000 (hardwood). The third bridge is 13 feet wide by 59 feet long and will cost about $69,000 (softwood). The Charleston, WV, bridge is 18 feet wide and 75 feet long and the bid cost was $78,800.

### TIMBER HARDWOOD BRIDGES

Senator BYRD. All right. How much timber would you say is being used, let's say, in these three bridges, or on the average, each of these three bridges.

What would you consider to be a typical bridge, and how much timber would be used on such a typical bridge?

Mr. ROBERTSON. Most of these bridges we are talking about are in the rural areas, and I suspect they would be bridges that are less than 100 feet long, with probably 35 to 40 feet.

Senator BYRD. How much timber would be used in that size bridge?

Mr. ROBERTSON. We would just be guessing, I guess, on that, Senator. I would like to supply that for the record.

Senator BYRD. I thought your research had advanced pretty far.

Mr. LEONARD. We know how much it is. We just don't have the figure with us.

Senator BYRD. All right.

Mr. LEONARD. If we are successful in getting acceptance of hardwood bridges in the normal course of designing bridges, it would provide a substantial market for hardwoods.

Senator BYRD. Would the industry be able to match the demand?

Mr. LEONARD. I think so, yes.

Senator BYRD. What would be the likely impact in West Virginia, for example? How many bridges have you—have you any estimate of the number of bridges there that would be replaceable by hardwood, hardwood bridges?

Mr. ROBERTSON. I don't have any figures on West Virginia. I can tell you what they are nationally. We will have to supply that for the record for West Virginia.

Senator BYRD. What about the national numbers?

Mr. ROBERTSON. In 1986, there were 575,000 bridges, of which about 75 percent of those were in the rural areas. And these are the kinds of bridges we are talking about.

They are going to need replacement and repair work within the next 10 years or so. So we are looking at perhaps 200,000 bridges in the United States.

Senator BYRD. I am reading from a Forest Service publication entitled "Build Better and Save With Modern Timber Bridges," a technology transfer plan for timber bridges, dated February 8, 1988.

I will read one extract therefrom.

> A typical, modern, two-lane timber springer bridge 50 feet long requires over 30,000 board feet of treated lumber with a deck and superstructure, and could use an additional 10,000 to 20,000 board feet for the guard rails, approach rails and abutments.
>
> Based on this average, each timber bridge uses as much lumber as five average-sized single-family houses. So, as a result, the Forest Products Industry, competitiveness and markets are benefited as well.

That was your answer to my question. [Laughter.]

Mr. ROBERTSON. That was a good answer. [Laughter.]

Mr. LEONARD. Senator, I think it is pertinent to note in the view of the West Virginia industry that this is putting hardwoods to use for a product and not displacing other uses, wood uses, for that material. So it is an additive market if it develops.

Senator BYRD. That is a good point.

Mr. ROBERTSON. To further expand on that, there are about 200,000 bridges that need replacement in the near future. And if each bridge is worth five houses, that is equivalent to 1 million housing starts.

We're running about 1.6 million now, so that is a big business.

Senator BYRD. You don't have any estimate of how many bridges in West Virginia would be [laughter.]

Here's my fine staff person. [Laughter.]

And now I will hand you the answer.

Mr. ROBERTSON. I'm going to hand that to my staff person, too. [Laughter.]

Mr. ROBERTSON. It looks like deficient bridges in West Virginia is 1,642; inventory is 3,396. That is a lot of bridges.

Senator BYRD. That would be equal to 12,000 houses, 12,400 minus 16.

Mr. LEONARD. In Switzerland, they were also expanding the use of wood for bridges. They decided that it was worthwhile, in order to extend the life of the bridge decks, to put coverage, the old, covered bridges, because that way the deck stays dry and retained.

And if we could get that additional accepted, that would increase the use of wood substantially.

Senator BYRD. Let's try to think in those terms. How many bridges does the Service build for its own use each year?

Mr. SESCO. The Forest Service usually builds from 100 to 250 bridges each year.

Senator BYRD. Is the local material used, too?

Mr. West. Very few timber bridges have been built on our main roads on the national forest. This new technology is something that we're trying to incorporate into our building program.

Mr. LEONARD. We have used treated timber bridges for a long time throughout the country. Not using the hardwood bridges that we're talking about today, but treated timber bridges had been used extensively on the west coast, for example.

Senator BYRD. Would you provide for the subcommittee a plan for demonstration projects involving the construction of a number of timber bridges, and state what the status is of achieving strength value tables for hardwoods and the need to refine those tables through further research and monitoring efforts.

Also indicate—I will have other questions for the record.

I congratulate the Service for the responsiveness that you have shown, to the efforts to increase funding for the Monongahela National Forest. I have tried to help you provide for a balanced program in keeping with the direction called for.

In the past year, I understand that the Forest Service has added a fisheries biologist to the staff to help plan and implement fish habitat projects, as well as the wildlife biologist and a recreations staff officer.

Is that correct?

Mr. ROBERTSON. Yes; it is.

Senator BYRD. How does the current budget for the Monongahela Forest compare to others, if you would submit that for the record?

Mr. ROBERTSON. We will.

Senator BYRD. How does it compare with the 10-year management program and what programs are we still funding for a rate significantly less than called for in the plan in terms of capital investments called for in the 10 years covered by the plan?

Indicate what progress we have made to date, and what we have left to do.

I will submit these and additional questions for the record.

Do you have anything further, Senator?

Senator MCCLURE. Nothing. Thank you.

## ADDITIONAL COMMITTEE QUESTIONS

Senator BYRD. Thank you, Chief, for your attendance and your testimony today. The committee and the various members of the committee, as you have already heard, will have a number of questions to be added to the record. And we would appreciate your prompt response.

Good luck to you in your work. Keep a close eye on those research projects in the laboratories around the country and in West Virginia.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### RESEARCH IN WEST VIRGINIA

1. Question: Please provide details on the status of Research programs in West Virginia. Please include program changes between the 1988 funding level and the 1989 President's Budget, both funding and staffing.

Answer: The Northeast Forest Experiment Station, headquartered in Broomall, Pennsylvania, maintains seven Research Work Units in the State of West Virginia: two at the Timber and Watershed Laboratory in Parsons, three at the Forestry Sciences Laboratory in Morgantown, and two at the Forestry Sciences Laboratory in Princeton.

Total funding of Research programs in West Virginia is increased $232,000 over the 1989 Base and FTE's are decreased by 7 FTE's.

The status of research programs, by Research Work Unit, is as follows:

### (A) PARSONS, WV (Two Research Work Units)

NE-4101, Growth and culture of central Appalachian hardwoods:

This unit provides scientifically sound management practices of Appalachian hardwoods to Regions 8 and 9 of the Forest Service, the West Virginia Department of Agriculture, and private landowners.

When applied, these practices result in better stand quality, increases in timber and non-timber values, and more revenues from public and private lands.

The unit has organized two regional workshops for practicing foresters and landowners on guidelines for regeneration of Appalachian hardwoods.

The unit is increasing its emphasis on stand establishment and stand development in a special pilot project with other research units.

NE-4301, Water resource protection in central Appalachian forests:

This unit has two primary research goals. The first is to minimize hydrologic impacts of surface disturbances from forest access and harvest operations, and the second is to evaluate the impact of atmospheric deposition on soil and water resources in Appalachian forests.

Watershed quality and the effects of acid streams on fisheries in the Appalachian forests are among the key components of the second research goal.

The unit is currently determining changes in water quality resulting from accelerated acidification, by artificial means, of a watershed. This work will be carried out with a grant awarded to the Forest Service from the Environmental Protection Agency.

The unit has developed a 30 minute video to show how to design and build environmentally acceptable logging roads at minimum cost. The video was developed in cooperation with West Virginia University and has been recognized by several awards.

| | FY 1987 Actual | FY 1988 Actual | FY 1989 Base | Change From FY 1989 Base | FY 1989 Estimate |
|---|---|---|---|---|---|
| | ($1,000) | | | | |
| PARSONS | | | | | |
| NE-4101 | 490 | 546 | 549 | -204 | 345 |
| NE-4301 | 326 | 340 | 344 | +44 | 386 |
| | 816 | 886 | 893 | -162 | 731 |

Staffing at the Parsons Lab will be reduced by 1 FTE, from 22 in 1988 to 21 in 1989.

## (B) MORGANTOWN, WV (Three Research Work Units):

NE-4507, **Silvicultural options for the gypsy moth:**

This units investigates the impact of gypsy moth on forest stands and develops impact/hazard rating systems for use by forest managers.

The unit is currently developing alternative treatments for gypsy moth control, including biologically derived products.

Silvicultural guidelines, to minimize the impacts of gypsy moth are being implemented and evaluated.

The unit has conducted a training session and presented recently developed technology on use of silvicultural treatments to minimize gypsy moth impacts in West Virginia, Ohio, Maryland, Indiana, Pennsylvania, Virginia, and Michigan.

The recently developed gypsy moth phenology model is being used by twenty cooperators to determine the optimum time for pesticide spray applications.

NE-4702, **Forest engineering research--timber harvesting systems and equipment for steep terrains:**

This unit develops harvesting systems for steep terrain and methods to predict the performance and feasibility of various timber harvesting systems.

The unit has built the scientific foundation for cable yarding technology in eastern hardwoods through symposia, equipment demonstrations, and publications and is currently evaluating new equipment to improve cable yarding efficiency.

NE-4751, **Systems to integrate harvesting with other resource management objectives:**

This unit develops technology to incorporate harvesting with other forest management objectives, such as wildlife and recreation in Appalachian forests.

The unit has developed a computer program (ECOST) to estimate the stump-to-mill cost of cable logging in eastern hardwoods and has developed other computer programs (MANAGE and APTHIN) to assist with integrated resource management decisions.

| | FY 1987 Actual | FY 1988 Actual | FY 1989 Base | Change From FY 1989 Base | FY 1989 Estimate |
|---|---|---|---|---|---|
| | | | ($1,000) | | |
| **MORGANTOWN** | | | | | |
| NE-4507 | 1,225 | 1,300 | 1,316 | +1,011 | 2,327 |
| NE-4702 | 290 | 138 | 140 | -90 | 50 |
| NE-4751 | 189 | 282 | 286 | -223 | 63 |
| | 1,704 | 1,720 | 1,742 | +698 | 2,440 |

Staffing at Morgantown will be reduced by 6 FTE's, from 23 in 1988 to 17 in 1989.

## (C) PRINCETON, WV (Two Research Work Units):

NE-4701, **Increasing use of eastern hardwoods through better processing with improved technology:**

This unit develops technology to increase and improve the commercial use of eastern hardwoods through better processing at the saw mill.

Technology to convert low-valued hardwood trees to high-valued products is being developed by the unit.

A new Advanced Hardwood Processing and Technical Resource Center was initiated in FY 1988. The Center will provide state-of-the-art technology to manufacturing companies and wood industries throughout the country. The Technology Transfer Act of 1986 will be utilized to help accomplish the mission of the Center.

The unit has developed a computerized system (P.C. Solve II) to evaluate the operation of existing hardwood sawmills.

NE-4803, An analysis of domestic and international demands for hardwood lumber and veneer and domestic supplies of these products.

This unit has four emphasis areas: (1) evaluating physical and economic factors affecting furniture demands for hardwood lumber; (2) analyzing physical and economic factors affecting the demand and supply of pallets; (3) evaluating economic and technical factors affecting the international trade of hardwood products; and (4) identifying the effect of technology, capital costs, wage rates, and log costs on supply of hardwood lumber.

The unit is also responsible for assisting in the transfer of technology being developed by the new Center for Advanced Processing.

The unit provides technical information on the economics of hardwood demand and supply and identifies barriers to international trade. Regional demand and supply models are developed for use by industry and forest managers.

The unit has also evaluated domestic and foreign factors affecting the recent increases in hardwood exports; plywood up 611%, veneer up 442%, lumber up 329%, and logs up 102%.

| | FY 1987 Actual | FY 1988 Actual | FY 1989 Base | Change From FY 1989 Base | FY 1989 Estimate |
|---|---|---|---|---|---|
| | ($1,000) | | | | |
| **PRINCETON** | | | | | |
| NE-4701 | 406 | 1,028 | 1,043 | -93 | 950 |
| NE-4803 | 743 | 981 | 986 | -211 | 775 |
| | 1,149 | 2,009 | 2,029 | -304 | 1,725 |

Staffing at Princeton will remain at the 1988 level of 31 FTE's.

## TIMBER HARDWOODS RESEARCH

2. Question: We intend to continue the research efforts to develop the flexible manufacturing system process at the Hardwood Research Center. For the record, would you provide me with your personal recommendations as to the desired funding level and the anticipated results over the next 3 years? Please include in your analysis how the funding will be spent, how you will work with industry and include an outline of your strategy for industrial development.

Answer: Historical funding for the Hardwood Research Center is detailed in previous response. At present, it is not possible to accurately predict the cost of the operating the Center in fiscal years 1990 and 1991. Future funding for the Center will have to reviewed along with other high priority research efforts. As such, the potential program results that follow represent the goals of the Center and would be adjusted over the years, depending upon actual funding received.

### ANTICIPATED RESULTS

Fiscal Year 1988

1. Design and establish data bases in cooperation with the Forest Products Laboratory and other groups.

2. Develop criteria for conducting analyses of wood-working machines in cooperation with machine manufacturers and users.

3. Initiate talks with manufacturers to decide which machines should be tested.

4. Initiate work on software packages to enable machines from different manufacturers to work together in a unified, computer-controlled system.

Fiscal Year 1989

1. Complete establishment of major data bases, move into maintenance and update status. Advise users that a new information source is available, and provide help in accessing the information.

2. Complete development of testing criteria.

3. Install machinery in Center and begin testing. First test data available to be available later in the year.

4. Continue work on software interface packages.

5. Provide technical assistance to the State of West Virginia in locating advanced hardwood processing plants.

Fiscal Year 1990

1. Develop ability for users to access data bases directly, without necessity to involve Forest Service personnel.

2. Continue maintenance and update of data bases.

3. Complete testing program through the start-up phase. Cooperate with manufacturers/users to run special tests to meet specific industry needs. Communicate test results to users.

4. Continue development of software interface packages. Some software for machine interfacing could be available.

5. Provide technical assistance to the State of West Virginia in locating advanced hardwood processing plants.

Fiscal Year 1991

1. Data bases could be directly accessible to users so that industry has immediate access to information.

2. Continue maintenance and update of data bases.

3. Continue testing program with increased availability of results to industry.

4. Industry would be expected to provide significant financial support for the testing program if potential results previously mentioned are successfully completed.

5. Additional machine interfacing software could be available.

6. Continue to provide technical assistance to the State of West Virginia in locating advanced hardwood processing plants.

Initially in fiscal year 1988, funds will be used to hire new staff with needed skills not now available at Princeton. The new, larger computer is a major cost during this year, as are the start-up costs of designing and building the data bases. In the second year, costs for building the data bases will continue and it will be necessary to purchase sophisticated testing machines to analyze the commercial machinery, and some temporary employees will be hired. By fiscal year 1990 the principal costs will be to maintain and update the data bases, continue to work on machine-interactive software, and conduct machine analyses. The technology transfer requirements will become significant as the Center distributes information to existing clients, and extends its service to new ones.

Starting in fiscal year 1988 the Center will work with organizations interested in bringing new wood processing industry to West Virginia. This activity will increase as the program of the Center takes shape and produces information. Another significant cost will be the continuing work on software which can control several machines of different origins. The machine testing, software development, data base maintenance, and transfer of information to industry all must be regarded as ongoing, not one-time, efforts if the Center is to meet its objectives of attracting new industry to West Virginia.

There is broad industry support for the program proposed for the Center. However, industry will want to see our ability to deliver on our proposals before committing major financial support. In fiscal year 1988 we have moral support. In fiscal year 1989 we should begin to receive assistance in kind, e.g. use of machinery, and some financial cooperation. By fiscal year 1990 the program should have developed sufficient credibility, through the data distribution system and the initial testing program, so that it would receive direct industry support. This could be in the form of a consortium, or in a series of cooperative relationships with individual companies or associations. We will probably be able to generate some industry funding before 1990, but we do not see a substantial investment before then. Industry will want to look at the performance of this new operation before committing significant funding.

The Station staff will work closely with industry, through associations and companies, as we have done from the inception of the program. We have high marks from industry for involving their representatives from the start. We will not only keep interested persons in industry informed, but encourage them to become involved in conducting the program at Princeton. As the Center develops substance, we will have seminars and meetings at Princeton, where we can demonstrate what is being done, and at any other location where it appears that we can talk usefully about the program. We will develop a source of expertise at the Princeton Center to which companies will be attracted and we will work closely with appropriate groups to facilitate the entry of new industry into West Virginia.

## COMPETITIVE RESEARCH GRANTS

I note that the fiscal year 1989 budget proposes the elimination of the competitive grants program. This Committee initiated the competitive grants program in 1985, based on the belief that forest researchers were ready to make significant strides in biotechnology research, such as creating new plants, or accelerating growth rates through genetic engineering. The Committee also held the view that an open, competitive system of allocating funding was likely to produce the best results, in the least amount of time.

3. Question: Would you summarize the progress to date in this program, and indicate whether this activity is worth continuing?

Answer: A summary of the entire Forestry Competitive Research grants program was prepared last February. It showed most of the funded proposals have produced information that has increased our pool of scientific knowledge. This was especially true for the areas of Forest Products Utilization and Forest Biology, toward which the competitive grants program has been directed, but much of the knowledge gained will be of value to other areas of science as well.

Individual competitive grants are awarded for up to 4 years. Therefore, although no funds are proposed in the 1989 President's Budget, funds provided in FY 1988 and earlier years will continue to support some research and produce results until around FY 1992. For this reason, a FY 1989 continuation of the competitive grants program was considered to be of a lower priority than other portions of the Forest Research program.

4. Question: I am told that the Forest Service did not request funding from the Department of Agriculture for the competitive grants program in 1989. Why not?

Answer: Continuation of the competitive grants programs in FY 1989 was considered to be a lower priority than other portions of the Forest Service Research program. As stated earlier, this is true in part because funding provided in FY 1988 and earlier years will allow research to continue until about 1992 (grants can be awarded for up to 4 years).

Furthermore, the Forest Service currently allocates roughly 11 percent of its regular research budget, exclusive of the competitive grants program, in support of extramural research by universities and private-sector scientists. That will amount to about $15 million in FY 1988 -- five times the available competitive grants funds for this year. Given any but the worst likely budget scenario for Forest Service Research, this allocation for extramural research will continue regardless of Competitive Grants funding levels.

5. Question: I understand that researchers in the State of West Virginia submitted 21 applications for research funding through the peer review, competitive system in the years 1985, 1986, and 1987. How many of those proposals have been funded?

Answer: West Virginia scientists submitted nine proposals in 1985, nine in 1986, and three in 1987. None of the 21 proposals submitted from West Virginia were funded.

6. Question: In total, what percentage of the proposals which are submitted are funded?

Answer: The annual percentages of funded proposals are:

1985 - 11%
1986 - 15%
1987 - 16%

Overall, 1,170 proposals have been submitted, with 160 funded, yielding a 13.7% funding rate for the 3-year life of the program.

7. Question: Are there reasons why the number of projects funded would be that low?

Answer: Competition has been keen for the funds available in this program. Only the very best proposals have been funded in order to keep the amount awarded per funded proposal at a productive level -- averaging more than $100,000.

8. Question: Can you provide, for the record, an explanation of the West Virginia proposals and why they were not funded?

Answer: Proposals that are not funded remain the exclusive property of the scientists; we do not know what research areas their proposals addressed. Furthermore, the comments and evaluations by reviewers and panel members must remain confidential, so we cannot obtain the specific reasons for funding decisions on any proposal.

9. Question: I note that the budget does not continue the competitive grants program in the Interior and Related Agencies Appropriation Bill in 1989. However, because this program is actually administered by the Cooperative State Research Service (CSRS) in the Department of Agriculture, is there any interest in continuing this program through funding which could be provided in the Agriculture Appropriation Bill?

   Answer: There is strong outside interest and support for continuing the USDA Forestry Competitive Grants Program to accelerate research in the designated basic research areas of wood utilization and forest biology. CSRS has demonstrated the capability to administer this program easily and efficiently along with its broader USDA Grants Program, while the Forest Service has acted only as a conduit for the transfer of forestry grant funds to CSRS. The proposal to establish the program as a category in the overall USDA Grants Program has been suggested as a more logical, and perhaps more successful, arrangement.

10. Question: Would the research program be affected in any way if the funding were to be shifted from the Interior Appropriation Bill to the Agriculture Appropriation Bill?

    Answer: We know of no adverse effects that would likely result from such an action.

11. Question: Does the Cooperative State Research Service receive direct appropriations in the Agriculture Appropriation Bill for forestry related research?

    Answer: Yes. McIntyre-Stennis Funds, to encourage State colleges and universities and assist them in carrying out programs of forestry research, provide a notable example.

12. Question: I understand that a number of organizations support transferring forestry related competitive grants research funding to the Agriculture Appropriation Bill. For the record, would you provide a summary of pros and cons for this move, and include the stated positions of other groups, to the degree that those positions are known to the Forest Service?

    Answer: One important advantage of moving the program to the Agriculture Appropriations Subcommittee is that direct appropriation of Competitive Grants funding to CSRS, the administering agency, would result in more efficient administration of the program.

    The Hardwood Research Council has testified in support of the proposal to move the Competitive Grants program to the Agriculture Subcommittee. The universities, particularly through the National Association of Professional Forestry Schools and Colleges, appear to be the most vocal opponents of this proposal.

    We wish to note that we will continue to allocate a substantial portion of our regular Forest Research funds to support forestry-related research at the universities and in the private sector -- whether the Competitive Grants program continues under its present jurisdiction, is placed under new jurisdiction, or ceases to exist entirely. Furthermore, moving or eliminating the Competitive Grants program in FY 1989 or any subsequent year will not terminate grants already awarded under this program; awarded proposals will be funded for their full term.

## AIPM DEMONSTRATION PROJECT

Congress provided $8,000,000 in the 1987 Supplemental for insect and disease projects nationwide. $7,005,000 was provided for State and Private Forestry and $995,000 for Forest Service Research. It was the Committee's understanding that the funding would permit completion of all planned spruce budworm projects; the replacement of Southern pine beetle suppression funds used for gypsy moth eradication in Oregon; the initiation of an integrated pest management special project aimed at controlling the spread of the gypsy moth down the Allegheny Mountains and in West Virginia; the intensification Of survey, planning, data collection, and suppression of low level gypsy moth populations as a part of the Allegheny integrated pest management project; and the development of a national evaluation plan for forest pest management.

13. Question: I understand that we are not going to use any of the $7 million for additional spraying for gypsy moths. Why not?

Answer: None of the $7 million is being used for gypsy moth spraying because our normal suppression budget is adequate to cover the cost of gypsy moth spraying this fiscal year. These funds are being used to plan and begin implementation of the 13.5 million acre AIPM project. We anticipate that about $1 million of the AIPM funding will be carried over into FY 1989 to conduct treatment activities in the project area.

14. Question: Once we get the monitoring grid established that will tell us where the gypsy moth is spreading, how much will it cost us annually to continue this program? Would you provide a detailed response for the record?

Answer: Following is a detailed breakdown of the FY 1988 AIPM budget and FY 1989 estimated budget for the project. This breakdown does not include FY 1988 or FY 1989 research expenditures.

| PROGRAM CATEGORY | FY 1988 |
|---|---|
| Permanent Full-time Salaries | $355,700 |
| EIS Costs | 250,000 |
| Administration | 331,800 |
| Survey/Monitoring | 1,892,400 |
| Methods Development/ Evaluation | 549,900 |
| Total | $3,379,800 |

An estimated $1 million will be available from carryover funds for the 1989 program. Future year funding needs will not be known until surveys have been completed and treatment decisions are made. For planning purposes high density population treatment is assumed to cost $10/acre and low density population treatment is assumed to cost $15/acre.

15. Question: Will the State be required to match our spraying program?

Answer: Yes. The gypsy moth suppression program is a cooperative effort between the Forest Service and State agencies. The State cooperators request financial assistance from the Forest Service to cover the Federal share of the cost of spraying of the number of acres that they (the State cooperators) desire to treat. The Federal share of gypsy moth suppression program costs is: 50% for private landowners who own 500 acres or less of forest land; 33-1/3% for landowners who own more than 500 acres of forest land; and 25% for non-Federal public lands.

16. Question: Has the State been able to fully match the money which we have provided to date?

Answer: Not entirely. The cost of treatments within the AIPM project area and the cost of suppression treatments outside the AIPM boundary that are carried out to protect the integrity of the AIPM project will be borne entirely by the Forest Service. It is our understanding that availability of State funding has been a constraint on the amount of Federal financial assistance for gypsy moth suppression that some States, including West Virginia, have been able to request.

17. Question: I understand that some money will be provided directly to the States of West Virginia and Virginia for items including, personnel, travel, and office equipment. What are the States contributing to this effort?

Answer: Both West Virginia and Virginia are contributing "in kind" support for the project in the form of office space and administrative support.

In 1985, the gypsy moth defoliated 2,500 acres in West Virginia. In 1986, the number of acres increased to 8,250 acres. Last year, at the appropriation hearing, you estimated that 1987 defoliation would total 100,000 acres.

18. Question: What was the actual rate of defoliation in 1987? What are the estimates of defoliation for 1988 and 1989? What would these numbers grow to without the accelerated program?

Answer: In 1987, 1,329,653 acres of gypsy moth defoliation were recorded in the United States. We anticipate that defoliation in 1988 will total about 1 million acres; we have no national defoliation estimates for 1989.

In West Virginia, 12,479 acres were defoliated in 1987. This is expected to rise to nearly 200,000 acres in 1988.

Because gypsy moth populations in the AIPM project area are still low and scattered, we do not anticipate defoliation in the area in 1988. In 1989, areas within the project area that have the potential for defoliation will be treated. The technology being employed within the project area is intended to prevent defoliation from occurring.

19. Question: As I understand it, the Forest Service has to complete a new Environmental Impact Statement (EIS) before the accelerated program can be implemented. Is that essentially correct?

Answer: An EIS that documents our assessment of the effects of major Federal actions on the quality of the human environment will have to be completed before major actions under the AIPM program can take place.

20. Question: What happens to your accelerated program if the EIS is delayed a few months, do we miss all opportunity to spray in 1989?

Answer: Should the EIS process be delayed, we will still be able to treat the majority of the area needing treatment could be carried out under the existing 1985 programmatic EIS.

21. Question: Is there a need to accelerate the preparation of the new EIS? What could we do to accelerate the preparation of the EIS if necessary?

Answer: No, many other activities associated with the project can be carried out concurrently. The National Environmental Policy Act has built in timetables for review periods and can be accelerated per se. We do not anticipate any difficulties in preparing the EIS. However, should the EIS process be delayed, direct intervention within the AIPM boundary in 1989 could be conducted under the existing 1985 programmatic EIS.

## HARDWOOD TIMBER BRIDGES

I understand that the Forest Service, in cooperation with the Harley O. Staggers National Transportation Center at West Virginia University, and others, is conducting a conference on May 11 and 12 at Charleston, West Virginia, on the potential market of timber bridges. I am also told that a bridge will be constructed as a demonstration project during the conference.

22. Question: Is the Forest Service contributing money to support construction of the bridge? If not, who is paying to construct the bridge?

Answer: There are no Forest Service funds being used to construct this demonstration bridge. All construction costs are being paid by the West Virginia Department of Highways. However, since the bridge has been designed using new technology, the Forest Service will contribute some funds to have the bridge monitored during the next year or two to gain information on its performance.

23. Question: Does the Forest Service have any timber bridge demonstration projects planned in West Virginia in FY 1988 or FY 1989? If so, where?

Answer: The Eastern Region will construct three demonstration timber bridges on the Monongahela National Forest in FY 1988. Current plans are to build two stress-laminated timber bridges, one using yellow-poplar lumber, and another using a softwood species to obtain comparative information on cost and performance of the two materials. The third bridge will use red oak in a stressed parallel chord timber bridge design. All three bridges will be on the Cranberry River Road #76, and should be installed sometime this summer. A few trail bridges may also be built using timber during the years in question.

24. Question: Is the technology for building wooden bridges known, or is there a need for lengthy and time consuming research? What remains to be completed before the technology can be used by industry?

Answer: Considerable new technology for using timber in bridge construction and rehabilitation exists and is ready for implementation. Most of the available information, however, relates to softwood species that have traditionally been used, because of their known treatability and performance characteristics.

Work has been underway to modify bridge designs and technology to include treatable hardwoods and to gain acceptance of newer and more economical bridge designs. A necessary step, before industry will readily use the new systems and materials, involves approval by the American Association of State Highway and Transportation Officials (AASHTO). We have started this approval process for several of our designs and are currently monitoring experimental and demonstration bridges to document performance under several loading and exposure conditions.

Research is needed to develop sanctioned design criteria for new efficient designs, to obtain more cost and performance data on the new bridge designs to impress AASHTO and others with the safety and economics of these bridges, to develop bridge railing designs to be crash-tested and approved by AASHTO, to take a closer look at fasteners, and to expand our experience with bridges treated with chemicals other than creosote to broaden the supply sources for timber bridge material.

25. Question: How much timber is used in a typical bridge?

Answer: The stress-laminated bridge installed in conjunction with a conference in Pennsylvania last year was 48 feet long and 26 feet wide. We estimate that this bridge contains about 25,000 board feet for the deck and another 5,000 board feet for the curbing, posts, and rails for a total of 30,000 board feet. This equates to about 600 board feet per foot of length for a two lane bridge. These figures would probably be similar for other timber bridge systems as well. If timber piling and abutments are used to support the bridge, another 12,000 to 15,000 board feet of timber would be required. As a comparison, approximately 10,000 board feet of lumber is used in an average three-bedroom house.

26. Question: If the demand for hardwood bridges increased, would the Nation's wood industry be able to match that demand?

Answer: At present, nearly all timber bridges built in the country use softwood lumber, and in many part of the country softwoods will continue to be the primary bridge material. New demand for hardwood timber bridges will probably be confined to the hardwood producing regions of the country such as West Virginia, Pennsylvania, and other States in the Appalachian Region. Even here, softwoods will probably be used to help satisfy some of the demand. One of our primary objectives for the timber bridge program is to create new market opportunities for lower grades of some hardwood species such as red oak, and any grade of under-utilized hardwoods such as yellow poplar.

27. Question: What impact would it likely have in West Virginia?

Answer: Since West Virginia is centrally located in the Appalachian Region, has an abundant supply of other treatable hardwood species, and has an existing lumber and wood treating industry capable of expanding to supply timbers for bridge construction, it could become the center for a new hardwood bridge industry. This would improve the State's economy by increasing the number of wood industry and support services jobs while improving the value added ratio for the industry in the State. The State already has the Harley O. Staggers National Transportation Center in Morgantown that could complement timber bridge evaluations and technology transfer activities.

28. Question: How many bridges does the Forest Service build for its own use each year? How many use local wood as the building material?

Answer: The Forest Service usually builds from 100 to 250 bridges each year, with about 175 planned for construction in FY 1988. Of these bridges, 45 to 55 percent are of timber construction. The percentages vary considerably between Regions with Alaska, the Intermountain Region, and the Northeast Region building the highest percentages of timber bridges during the past 3 decades. Since most timber bridge producers are located in the Northwest and Midwest, most timber bridges built in the Nation use douglas fir, which is the predominant local species for many National Forests. Hardwoods would certainly be appropriate for use in eastern National Forests.

29. Question: Would you agree that this is an area that should be pursued, and will you give me your assurance that you will investigate this and report back on the findings?

Answer: Yes, we have already investigated the use of timber for our bridge construction program for the past 3 decades. We will continue to monitor this situation and send you periodic performance reports.

30. Question: Can the Forest Service also provide us a plan, for the record, for demonstration projects involving the construction of a number of timber bridges?

Answer: The Forest Service recently completed a Technology Transfer Plan for Timber Bridges that includes the construction of 30 bridges over a three year period to demonstrate the use of modern timber design concepts as a specific goal. A copy of this plan is provided.

## A TECHNOLOGY TRANSFER PLAN FOR TIMBER BRIDGES
February 8, 1988

### INTRODUCTION

The condition of bridges on the road system of the United States constitutes a major hazard to the traveling public. Bridges on major highways have collapsed and public officials have expressed grave concern over an inability to afford the necessary improvements. While the news media have paid much attention to the seriousness of this issue in major metropolitan areas, relatively little attention has been given to the condition of roads and bridges in rural areas. While it is true that not as many people are directly affected by rural transportation systems, farm produce, forest products and other essential materials must be transported to urban markets and rural residents must have access to essential services.

The status of the rural transportation infrastructure is complicated by the limited financial resources available for maintaining these systems. While the cost for upgrading rural roads is much less than that required in urban areas, the resources available to support these rebuilding efforts are also much less.

Timber was the traditional bridge material for railroads and highways until the early 1900's when steel and concrete structures became more common. Since then, most new bridges have used these other materials to the point that currently, only 12 percent of the national bridge inventory has wood as the primary structural material.

A 1986 report from the Federal Highway Administration (FHWA) shows that about 75 percent of the Nation's 575,000 bridges are on secondary and rural roads, and that over 50 percent of them are either structurally or functionally deficient. Most of these deficient bridges were built during the 1930's and 1940's when loads were lighter and chemicals were not used for ice removal. Many of these deficient bridges will need to be replaced during the next several years.

In addition to bridges on the public highway system, the Forest Service (FS) builds 100 to 250 bridges annually, and other government agencies such as the National Park Service, Bureau of Land Management, Bureau of Indian Affairs and the Department of Defense install many more. If decision makers and bridge engineers had up-to-date information on modern timber bridge construction, many of these replacement and new bridges would likely be built of economical, durable wood.

This Timber Bridge Technology Transfer Plan is intended to provide a means of delivering needed information to appropriate individuals. It was drafted under the leadership of the USDA Forest Service with considerable input from the USDA Office of Transportation (OT), FHWA, Federal Extension Service (ES), State Foresters and industry organizations. Many other groups with an interest in bridges will be given the opportunity to participate in the planning and implementation phases as the process continues.

## BACKGROUND

In the fall of 1983, a Forest Service engineer recognized that a considerable amount of technology on the design, construction and maintenance of timber bridges had been developed, but had not been adequately introduced to professionals involved with the specification, design and construction of bridges. He convened a fact-finding workshop to determine general interest in participating in a plan to implement the latest timber bridge technology and identify what needed to be done. Workshop attendees included over 40 representatives from various segments of the wood products industry as well as timber bridge fabricators, several government agencies and transportation interests.

Participants reviewed data available at the time on new technology, potential market demand, industry supply capabilities and available funding for a promotional/educational program. They concluded that there is a large potential market for bridge replacements and repairs, and that application of timber bridge technology could play a vital role in meeting the urgent need to upgrade the Nation's transportation systems. Most workshop participants agreed to cooperate with the FS in implementing this technology, and the FS assumed the lead in developing a formal plan. The first plan was approved for implementation May 15, 1984.

Funding for the program was severely limited in subsequent years so the program could not proceed as originally planned. Implementation has, however, proceeded on a limited basis. The National Forest System Engineering (NFS-E) staff assumed responsibility for developing a Timber Bridge Design Manual that was judged to be an essential part of the plan. This publication is expected to be available for distribution by September, 1988.

To test the interest of decision makers and to evaluate technology transfer methods, the FS, USDA OT, FHWA and several other cooperating organizations sponsored pilot workshops on Timber Bridges at Pennsylvania State University in May 1987, and at Colorado State University in August 1987. Over 125 people from target audience groups attended each workshop and heard presentations on the technical and economic reasons why timber bridges should be considered for future construction projects. They also witnessed the installation of new timber bridges using the latest technology. The FHWA made video tapes of summaries of most presentations and the installation of the demonstration bridges for use in future programs. Excellent media coverage of the events has generated interest in conducting similar programs at several other locations.

The Forest Products Laboratory is sponsoring research on new bridge technology, and the National Forest System has installed several bridges to demonstrate the economics and structural integrity of this new technology. In addition, the OT staff has done much to publicize the advantages of timber bridges through participation in national conventions of the Transportation Research Board and other organizations with an interest in bridges, placing articles in several newsletters, and appearing on public service television programs.

## CURRENT STATUS

Implementation will proceed as planned during fiscal year 1988. The primary sponsors of this activity are currently working with State Foresters, State Extension and university people, local industry groups and others to conduct at least two more workshops or conferences during 1988. Two are scheduled to be held in West Virginia, May 11 and 12, and Wisconsin, August 3-5, with some discussions being held for additional workshops or demonstrations in Georgia, Michigan and Mississippi.

More than a dozen other States have expressed interest in having similar programs. The OT is developing a data base on the current use of timber for new or replacement bridges and will work very closely with S&PF on developing and sponsoring more workshops. The NFS-E and FS Research staffs are planning to install several more timber bridges during 1988 to demonstrate the economics and performance of more new bridge technology. The NFS will complete the Timber Bridge Design Manual and have it ready for distribution by September, 1988, and the FS and several other Federal cooperators plan to sponsor one or more crash tests on typical timber bridge guardrail systems during the coming year. Several industry organizations are cooperating on many of these projects.

The design and construction of timber bridges provides the additional opportunity to use wood species for the bridges which are native to the States in which the bridges are to be installed. Pennsylvania, for example, has an abundant supply of red oaks that are underutilized. Pennsylvania State University and other interested organizations have developed allowable design stress values for oaks and other hardwood species using standard American Society for Testing and Materials (ASTM) procedures. These values have been submitted to the American Lumber Standards Committee for review and approval with the cooperation of the Northeast Lumber Manufacturers Association. They are expected to be approved and ready for use within the next few months.

## OBJECTIVE

The basic objective of this plan is to improve the Nation's public road systems by providing safe and economical treated timber alternatives for new bridges and bridge replacements that are so necessary in the country. Bridges on Federal lands, such as the National Forests, National Parks, Indian Reservations and Military Installations are also included as part of this objective.

Although the nation's railroads still use timber for over 50 percent of their bridges, and that market segment could benefit from new timber bridge technology, railroad bridges are not included as part of the plan because the target audience for the program is completely different and sufficient resources are not available to allow diversifying our efforts.

## GOALS

The specific goals of this plan are as follows:

1. Inform State, county and township officials, Federal agencies, engineers and contractors about the advantages of using properly treated timber for new and replacement bridges on local and secondary road systems and public properties.

2. Provide guidance on rehabilitation of existing timber bridges and otherwise assist in improving the Nation's road system by providing information on safe and economical alternatives for bridge replacement needs, including the use of treated timber where existing abutments are good and only decks need to be replaced.

3. Stimulate an increase in timber bridge research, and incorporate newly developed concepts into bridge standards.

4. Refine existing AASHTO standards to reflect current timber bridge technologies.

5. Triple the use of pressure treated wood used for the construction of timber bridges during the next 4 years, with a 1986 data base.

6. Conduct timber bridge workshops in at least 30 States.

7. Construct at least 30 bridges demonstrating modern timber design concepts with at least one located in a high visibility location.

## MESSAGE

In many instances timber bridges offer providers, builders and users of our transportation network an economical, durable, safe and attractive alternative for spanning gaps on roads, highways and trails. Some of the obvious advantages for timber bridges compared with other bridge types are:

1. Economically attractive compared with other materials and designs.
   - -- competitive initial cost
   - -- low maintenance costs
   - -- easy to repair
   - -- can often use local material and labor

2. Excellent performance characteristics.
   - -- durable and reliable
   - -- low maintenance needs
   - -- resistant to deicing chemicals
   - -- high impact resistance
   - -- maintains integrity of wearing surface
   - -- assures extended life when properly treated with preservatives (and certified by third party agency)

3. Attractive construction characteristics.
   - -- relatively simple to design
   - -- standard design plans available
   - -- small crews can erect timber bridges
   - -- reduced need for highly skilled labor or heavy equipment
   - -- prefabricated components are available as a packaged system
   - -- often uses a renewable local timber resource
   - -- simple to relocate or reuse components
   - -- easy to rehabilitate
   - -- easier to modify or upgrade than competitive systems
   - -- support local economy in many areas of the country

## AUDIENCE

There are a number of equally important audiences that need to be addressed. These include decision makers such as administrators, managers and elected or appointed government officials; and technical and design professionals in both the public and private sectors. Within the public sector, officials at all levels of government need to be reached. Private sector audiences include landowners, consultants, road & bridge contractors, fabricators and representatives from several segments of the forest products industry. In addition, there are a number of secondary but critical audiences that can benefit from the new bridge technology. Included among the secondary audiences are educators and members of technical, professional and industry associations and societies.

## CONCERNS

There are some concerns which must be addressed during the timeframe included in this Plan. These are:

1. We need more bridge rail designs that are acceptable to the American Association of State Highway and Transportation Officials (AASHTO) and local authorities. This includes a validation of the rail designs by crash-testing.

2. We need information on the availability of packaged timber bridges nationwide.

3. We need a series of standard plans for bridges 20 to 60 feet in length that use new technologies.

4. We need more documentation of in-place initial and life-cycle costs of timber bridges versus other structural materials.

5. We need approved structural design values for treatable species of hardwoods.

6. How do we overcome the negative attitude for timber bridges currently held by many State and Federal bridge engineers.

## PLANNING COMMITTEE

### USDA - Forest Service

John Crist, Field Representative - Northeastern Area
Clare Mitchell, U&M Specialist - Region 4
William E. Penoyar, Assistant Director - Cooperative Forestry
Howard Rosen, Forest Products and Harvesting Research
Erwin Schaffer, Assistant Director - Forest Products Laboratory
Clyde Weller, Structural Engineer - NFS Engineering
Robert Westbrook, U&M Specialist - Region 8
John White, National U&M Specialist - Cooperative Forestry

### USDA - Office of Transportation

Ruth McWilliams, Chief, Rural Policy & Economic Analysis

### USDA - Extension Service

Donald E. Nelson, National Program Leader, Wood Products

### Department of Transportation - Federal Highway Administration

Harry Hersey, National Highway Institute

### National Association of State Foresters

Elvin Frame, U&M Supervisor, Virginia Department of Forestry

Industry

R. Michael Caldwell, Director of Engineering, National Forest Products Association

ORGANIZATIONAL ROLES

CF - Forest Service - Cooperative Forestry

-- Provide overall coordination of TT implementation.
-- Provide technical assistance to users of bridge technology.
-- Take lead in design of exhibits and coordinating their use.
-- Take lead in TT training programs.
-- Take lead in I&E training for designers and fabricators.
-- Take lead in evaluating and reporting progress and results.
-- Work with State Foresters on workshops and demonstrations.
-- Assist in developing stress values for hardwoods.
-- Assist in planning demonstration bridge projects.
-- Assist with reviewing draft of Timber Bridge Design Manual.
-- Assist with development of publicity plan.
-- Assist with publicity.

FPL - Forest Service - Forest Products Laboratory

-- Take lead in developing basic procedures for studying the economic feasibility of timber bridges.
-- Take lead in evaluating new bridge technologies on experimental bridges.
-- Provide information on new timber bridge design technology.
-- Assist in constructing models and exhibits.
-- Assist with TT Training for designers and fabricators.
-- Assist with developing stress values for hardwoods.
-- Assist with publicity effort.
-- Assist with modifications to AASHTO standards.

NFS - Forest Service - NFS Engineering Staff

-- Promote the use of timber bridges on National Forests.
-- Prepare draft of Design and Construction Manual.
-- Take lead in reviewing draft of the Timber Bridge Design Manual.
-- Publish Manual as an Engineering Handbook.
-- Work with NFPA & FHWA in printing the Timber Bridge Design Manual.
-- Take lead in locating sites and installing demonstration bridges on National Forests.
-- Monitor and document demo bridge performance.
-- Take lead in conducting guardrail crash test.
-- Develop statistics on use of timber bridges on NFS.
-- Provide liaison with Regional Bridge Engineers.
-- Assist with economic studies.
-- Assist with workshops and TT training programs.
-- Assist with obtaining revisions to AASHTO standards.

PAO - Forest Service - Public Affairs Office

-- Take lead in preparing publicity plan.
-- Take lead in implementing publicity plan.

OT - USDA - Office of Transportation

-- Take lead in preparing a popularized publication on timber bridges for decisionmakers.
-- Take lead in developing use statistics.
-- Provide liaison with rural government organizations.
-- Assist in developing economic studies.
-- Assist with workshops and training programs.
-- Assist with preparation of promotional material.
-- Assist in planning demonstrations off the National Forest System.
-- Assist with publicity.

CES - USDA - Extension Service and Cooperative Extension Service

- -- Involve State Extension Specialists in the program; ie. Ag. Eng., Forestry, Wood Products, Rural Development, etc.
- -- Provide information to and liaison with Regional Agricultural Engineering Centers, Rural Development Centers and others.
- -- Incorporate timber bridge plans into the Cooperative Farm Building Service.
- -- Identify the economic development potential of timber bridge production within local industries.
- -- Initiate coordinated State level Timber Bridge information programs.
- -- Prepare a Timber Bridge educational package for use by County Extension staff with local leaders.
- -- Provide leadership to Land Grant Colleges to include timber bridge design in engineering curiculums.
- -- Organize or Assist with I&E demonstrations, workshops and training programs.
- -- Assist with publicity to target audiences.
- -- Provide bridge information through the Rural Information Center.

FHWA - Federal Highway Administration

- -- Assist with review of Timber Bridge Manual.
- -- Print copies of the Timber Bridge Design Manual for use by State RTAP Centers.
- -- Provide video tapes of pilot workshops to State RTAP Centers.
- -- Produce video tapes of demonstration bridges for use in training programs.
- -- Assist TT Centers develop course material and conduct workshops on timber bridge design.
- -- Assist with development of use statistics.
- -- Assist with program monitoring and evaluation.
- -- Assist with guardrail crash testing.

SF - State Foresters

- -- Sponsor workshops and bridge demonstrations.
- -- Provide liaison with State highway agencies.
- -- Provide liaison with forest products industry and suppliers in State.
- -- Participate in training programs.
- -- Assist with publicity and exhibits.
- -- Assist with development of stress values for hardwoods.
- -- Assist with economic studies.

AITC - American Institute of Timber Construction

- -- Assist with changes to AASHTO standards.
- -- Assist with training and publicity.
- -- Assist with workshops and demonstrations.
- -- Assist with economic studies.
- -- Assist with monitoring statistics.
- -- Assist with guardrail tests.

NFPA - National Forest Products Association

- -- Review draft of the Timber Bridge Design Manual.
- -- Print the Manual for sale to general public.
- -- Take lead in obtaining modifications in AASHTO standards.
- -- Assist with publicity, workshops and demonstrations.
- -- Assist with economic studies.
- -- Assist with training programs for designers and fabricators.
- -- Assist with developing stress values for hardwoods.
- -- Assist with guardrail tests.
- -- Assist with monitoring and evaluation of program.
- -- Assist with confirming new design technology.
- -- Assist in developing a popularized publication on timber bridges.
- -- Develop award program for innovative timber bridge designs and uses.

AWPI, SAWP, SPTA, WWPI, NTPC - Associations representing Wood Treaters

-- Assist with guardrail tests.
-- Assist with changes to AASHTO standards.
-- Assist with training and publicity
-- Assist with workshops and demonstrations.
-- Assist with economic studies.
-- Assist with monitoring statistics.

NELMA, SFPA and WWPA - Associations representing Lumber Producers

-- NELMA take lead in obtaining ALSC approval of hardwood design values.
-- Assist with training and publicity.
-- Assist with workshops and demonstrations.

ROLES FOR TENTATIVE COOPERATORS

AASHTO - American Association of State Highway & Transportation Officials

-- Review plans for guardrail tests.
-- Expedite revisions to AASHTO timber bridge standards.

ASCE - American Society of Civil Engineers, Committee on Timber Bridges

-- Review draft of Manual.
-- Possibly publish Manual.
-- Sponsor workshops & seminars on timber bridges.

APWA - American Public Works Association

-- Review draft of Manual.
-- Assist with publicity.
-- Sponsor workshops & seminars on timber bridges.

NACE - National Association of County Engineers

-- Review draft of Manual.
-- Sponsor workshops & seminars on timber bridges.
-- Assist with publicity effort.

NATAT - National Association of Towns & Townships

-- Sponsor seminars on timber bridges.
-- Assist with publicity effort.

WHO BENEFITS

First of all, the general public benefits from having an improved infrastructure in rural areas and possibly for less tax dollars. This reduces the cost of transporting farm, forest products and other rural products to the consumer.

The residents of rural America benefit from having a safer, more efficient transportation system for everyday use. There will be less need to take long detours to get to stores, schools, church, and medical facilities. Local economies also benefit from added employment opportunities for workers harvesting timber, manufacturing and treating lumber, fabricating and erecting new timber bridges or rehabilitating existing bridges.

The forest landowner benefits from added markets for his timber and the researchers that have developed the new technology will benefit from knowing that their efforts were not in vain. A typical modern two lane timber stringer bridge 50 feet long requires over 30,000 board feet of treated lumber for the deck and superstructure, and could use an additional 10,000 to 20,000 board feet for the guardrails, approach rails, and abutments. Based on this average, each timber bridge uses as much lumber as five average size single family houses. As a result, the forest products industry competitiveness and markets are benefitted as well.

## IMPLEMENTATION PLAN

### A. Timber Bridge Design and Construction Manual

Forest Service Engineering Staff is writing a Design and Construction Manual that is to be used by bridge designers, fabricators, contractors, and specifiers to assist in timber bridge design and construction. It is a critical backup document to an active education and assistance program. The manual addresses the following points:

1. Compilation of existing bridge technologies
    a. Design (including computer programs)
    b. Construction
    Labor, equipment, time requirements, and other needs.
2. Design examples for bridges
3. Maintenance and inspection procedures
4. Rehabilitation techniques
5. Bibliography of useful references
    a. Design approaches
    b. Typical plans and criteria

Forest Service Engineering Staff will edit and publish the manual. Assistance will be drawn from other publications of AITC, NFS-Engineering, U.S. Forest Products Laboratory, university professors, and other cooperators. About 2,000 copies will be produced by FS Engineering for initial distribution and then released to other organizations for prepared editorial modifications, reprinting, and sale and distribution (e.g., FHWA, NFPA, NTIS, ASCE). The target date for completing the draft will be March 1988 and publication by September 1988.

### B. Economics

The economy of timber bridges is not well documented. Timber bridges of 20 to 100 foot span compete well against bridges of other materials in many sections of the U.S. The longitudinal deck and stressed deck designs appear to be highly cost effective. Expediting bridge design, component fabrication, and construction through systematic effort also has enhanced timber bridge cost competitiveness. To enhance technology transfer, the FPL will take the lead in developing a proceedure and conducting a study to provide the requisite initial cost and life cycle cost information.

Completion of the draft report is targeted for one year after the starting date for the Technology Transfer effort. Information on economic considerations will also constitute a major chapter in the Design and Construction Manual. Responsibility for developing economic evaluation procedures for timber bridges will be with the Forest Products Laboratory with assistance from CES, OT, NFS, CF, and other interested parties (AITC, SAWP, AWPI).

### C. Design Considerations

NFS specifies 50 percent of the design load carrying capacity given in AASHTO standards for bridge railings on single lane bridges. AASHTO, with support of NACE, FPL and FHWA, is evaluating load-carrying criteria. FHWA is testing a bridge railing detail that can cost-effectively meet the current AASHTO requirements for two lane roads.

The AASHTO specified design horizontal shear capacity for bridge members, as well as other portions of the AASHTO standards also require clarification or change. Responsibility for this activity rests with NFPA with assistance of FS Engineering, S&PF, and the USDA Office of Transportation.

### D. Information Dissemination

General information bulletins and leaflets, workshops, seminars, lectures, papers, and demonstrations will be targeted for initiation of the TT effort during the first year, and will be continued through the second year of implementation of the Revised TT Plan. All cooperators with written or oral access to target audiences are encouraged to participate in this activity, with the National Timber Bridge Specialist coordinating activities to avoid duplication.

Seminars and workshops should cover basic bridge design and construction practices, and be geared to federal (i.e. Forest Service, BLM, BIA, etc.), state and local (county, town, and township) audiences. Specific recommendations on how bridges can be specified, acquired, and placed should be stressed. NACE meetings and the FHWA State Technology Transfer Centers will be key locations.

When the Timber Bridge Design and Construction Manual becomes available, it should be used as the basis for seminars or workshops. The S&PF staff will provide three ring binders full of timber bridge material for any workshops held prior to the printing of the Manual. All cooperatores should participate in sponsoring conferences and workshops if they have the resources to do so. Target audiences for timber bridge conferences and workshops should be highway and bridge engineers as well as State, County and local decision makers.

E. Demonstrations

Bridges will be constructed as demonstration projects for accepted timber bridge design/construction technologies. Construction labor, equipment, and procedures should realistically reflect that needed in normal practice. Witnessing the erection of the components, and some peripheral construction (abutment, bents, road surface) in one day or less is desireable.

The Federal Highway Administration and the Forest Service will videotape record the elements of construction of several bridge types (dowel deck, longitudinal deck, clip bridge, nail-laminated deck with both solid-sawn and glued-laminated beams) for generation of a video tape or film demonstrating all types. Demonstration sites and cooperation should be obtained from FS Engineering, TVA, BLM, National Park Service, USDA Office of Transportation, and other State, local, or Federal agencies.

Demonstrations began in 1986 and are targeted to continue throughout the next 4 years of the updated, revised TT effort. Leadership for the demonstrations on National Forest System roads rests with NFS-Engineering. S&PF and State U&M or Extension specialists will take the lead on private or other public roads with assistance provided by NFPA, USDA-OT, and other cooperators.

F. Publicity

Enlist the cooperation of USDA, FS, Extension Service, and FPL Public Affairs Office in producing activity appropriate to the scheduled TT activities. Publicity activities should present a positive message on the advantages of timber bridges including economy, esthetics, durability, natural fire resistance, ease of placement, etc.

Seek exposure of activities in such written media as:

Rural America
Rural America Review
Southern Living Magazine
FS Engineering Field Notes
Rural and Urban Roads
Better Roads
ASCE News
Civil Engineering
Newsletters of Associations and Societies (NACE, NATAP, NATaT, AGC and ARTB)
Federal Agency Newsletters, (BLM, FHWA, USDA, NPS, DE, DOD, etc.)
Proceedings from Engineering technical forums such as TRB, ASCE and AASHTO workshops.

TV exposure should be sought on "Down to Earth" and "A Better Way." USDA-OT will take the lead preparing a popularized timber bridge publication for administrators and managers. Exhibits at NACE and Agricultural Engineering annual meetings and other large audience contact locations are required.

A publicity plan is needed to cover announcements of initiation of the effort as well as drawing attention to implementation activities after the Timber Bridge Design and Construction Manual is available. Information offices of the Forest Service, WO-PAO, USDA-OT, and NFPA will spearhead this effort with assistance provided by the FPL Public Affairs Office. An effort will also be made to establish an award program for innovative timber bridge designs and uses.

### G. Evaluation

This plan will be considered satisfactorily implemented when goals 4-7 on page 4 are accomplished or when preservatively treated timber bridges constitute 5 percent of placement and/or when 20 percent of county and local bridges are of timber. FHWA, USDA-OT, and NFS will annually collect statistical data on new timber bridges built during the time span of this effort. A four year TT period is believed adequate to achieve this goal. The plan will be reviewed annually to revise the approach as necessary and insure that intermediate milestones are being achieved.

## ORGANIZATION FOR IMPLEMENTING THE PLAN

If funding is approved, the focal point for the timber bridge technology transfer effort will be a National Timber Bridge Specialist on the Cooperative Forestry staff, reporting to a Technology Transfer Coordinator position to be located at the Forest Products Laboratory in Madison. If the Timber Bridge position cannot be funded, but the TT Coordinator position is, responsibility for coordinating the implementation of this plan would fall in the TT Coordinator or possibly one of our other federal U&M specialists. Other key positions for implementing the plan are the Transportation Structures Engineer on the Engineering staff of NFS, the staff engineer who is currently writing the Timber Design & Construction Manual, the project leader for the USDA Office of Transportation, and the Director of Engineering for NFPA. Other people that will probably be involved include:

Forest Service U&M Specialists in the Regions and Area
Regional Bridge Engineers
Research Scientists, Engineers and Economists at FPL
Information Officers
State U&M Specialists
Specialists in the Extension Service
University Research Engineers and Scientists

Other organizations that will probably be involved include:

U.S. Department of Transportation
  Federal Highway Administration (FHWA)
  National Highway Institute Rural Technical Assistance Programs (RTAP's)

U.S. Department of Interior
  Bureau of Land Management (BLM)
  Bureau of Indian Affairs (BIA)
  National Park Service (NPS)

U.S. Department of Defense
  Corp of Engineers (CE)

Tennessee Valley Authority (TVA)

Transportation Research Board (TRB)
  Committee on Low-Volume Roads

National Association of County Engineers (NACE)

Rural Governments Coalition
  National Association of Towns & Townships (NATAT)
  National Association of Counties (NAC)
  National Association of Regional Councils (NARC)
  National Association of Development Organizations (NADO)

National Association of State Legislators (NSASL)
American Society of Civil Engineers (ASCE)
    Structural Division, Committee on Timber Bridges
American Society of Agricultural Engineers (ASAE)
    Committee on Roads
American Society for Engineering Education (ASEE)
American Road and Transportation Builders Association (ARTBA)
American Institute of Timber Construction (AITC)
American Wood Preservers Institute (AWPI)
Society of American Wood Preservers (SAWP)
Southern Forest Products Association (SFPA)
Western Wood Products Association (WWPA)

TIMBER BRIDGE ACTION PLAN

| ACTIVITY | RESPONSIBILITY | 1988 QUARTER | | | | Year 1 QUARTER | | | | Year 2 QUARTER | | | | Year 3 QUARTER | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Draft D/C Manual | NFS | x | | | | | | | | | | | | | | | |
| Review Draft | NFS, Others | x | x | | | | | | | | | | | | | | |
| Publish Manual | NFS,NFPA,DOT | | | x | | | | | | | | | | | | | |
| Economic Studies | OT,FPL,NFPA | x | x | x | x | | | | | | | | | | | | |
| Modify AASHTO Stds | NFS, Others | | | x | x | x | x | x | x | | | | | | | | |
| Dev. Promo. Mater. | CF,OT,NFPA | x | x | x | x | x | x | x | x | | | | x | x | | | |
| Prepare Exhibit | FPL,CF | | | x | x | | | | | x | x | | | | | | |
| Conduct Workshops | CF, Others | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Demonstrations | NFS, Others | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Prepare Publ. Plan | PAO, Others | | x | x | x | | | | | | | | | | | | |
| Publicity | PAO, Others | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| TT Training for SF ES,NFS, etc. | CF,NFS,ES,OT | | | x | x | x | x | | | x | x | | | x | x | | |
| I&E Training for Designers, Fabric | CF,FPL,NFPA | | | x | x | | | | | x | x | | | | | | |
| Prov. Tech. Assist. | CF,FPL,NFPA | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Dev. Stress Values for Hardwoods | CF,FPL,NFPA | x | x | | | | | | | | | | | | | | |
| Dev. Popular Pub. for Admin., Mgrs. | OT, Others | x | x | | | | | | | | | | | | | | |
| Dev. Use Stats. | OT,DOT,NFS | | | | x | | | | x | | | | x | | | | x |
| Guardrail Test | NFS,DOT,NFPA | | x | x | x | x | | | | | | | | | | | |
| Monitor Progress | CF, Others | | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Evaluate Progress | CF, Others | | | | x | | | | x | | | | x | | | | x |
| Report Results | CF | | | | x | | | | x | | | | x | | | | x |

## BUDGET REQUIRED TO IMPLEMENT THE TIMBER BRIDGE TECHNOLOGY TRANSFER PLAN

| DEPUTY AREA | BUDGET BY YEAR ($1000)<br>Year 1 | Year 2 | Year 3 | TOTAL |
|---|---|---|---|---|
| National Forest System | 481 | 582 | 684 | 1,747 |
| Research | 246 | 231 | 218 | 695 |
| State & Private | 440 | 540 | 475 | 1,455 |
| TOTALS | 1,167 | 1,353 | 1,377 | 3,897 |

Note: Details for these funding needs are available from the respective staff units responsible for implementing the plan. Basically the funds will be used for demonstration bridges on and off the NFS ($2.4 MM); preparation of promotional material such as the Timber Bridge Design Manual, bridge models, exhibits, videotapes, etc ($0.3MM); developing, testing, monitoring new timber bridge designs ($0.3MM); developing comparative economic information on timber vs competitive materials ($0.1MM); plus salaries and operating expenses for a National Timber Bridge TT Coordinator, a Research Engineer and supervisory and support staff ($.8MM).

Recommended by:

F. A. DORRELL
Director
Cooperative Forestry

J. R. ERICKSON
Director
Forest Products Laboratory

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ATTACHMENT A

## TIMBER BRIDGE TECHNOLOGY TRANSFER PLAN

### Cooperative Forestry Budget Estimate

| ITEM | Budget by Year (1,000 Dollars) | | |
|---|---|---|---|
| | Year 1 | Year 2 | Year 3 |
| SALARIES | | | |
| CF Assistant Director for U&M (20% time, including secretarial support) | 20 | 22 | 24 |
| National Timber Bridge Specialist (100%, including secretarial support) | 80 | 83 | 86 |
| Salary Subtotal | 100 | 105 | 110 |
| TRAVEL | | | |
| Assistant Director for U&M | 3 | 3 | 3 |
| National Timber Bridge Specialist | 10 | 10 | 10 |
| Sponsored Experts | 4 | 4 | 4 |
| Travel Subtotal | 17 | 17 | 17 |
| PROMOTIONAL MATERIAL | | | |
| Printing (Pamphlets, Fact Sheets) | 25 | 20 | 20 |
| Postage | 3 | 3 | 3 |
| Slides, Graphics, Exhibit Development | 15 | 5 | 5 |
| Exhibit Fees (1 to 2 per year) | 10 | 10 | 10 |
| Models of Timber Bridges (max of 6) | 20 | 15 | 5 |
| Video-tapes of Demos/Tech. Talks | 6 | 5 | 5 |
| Promotional Subtotal | 73 | 58 | 48 |
| DEMONSTRATIONS | | | |
| Cost-share for 30 Demonstration Bridges | 240 | 360 | 300 |
| YEARLY TOTALS | 430 | 540 | 475 |

GRAND TOTAL: $1,445,000

ATTACHMENT B

## TIMBER BRIDGES TECHNOLOGY TRANSFER PLAN
## NFS ENGINEERING BUDGET ESTIMATE

| ITEM | BUDGET BY YEAR ($1000) | | |
|---|---|---|---|
| | Year 1 | Year 2 | Year 3 |
| SALARIES: | | | |
| Asst. Director of Engr. | 3.5 | 3.8 | 4.0 |
| Chief Structural Engineer (20%) | 12.5 | 13.2 | 14.0 |
| Tech. & Development Centers | 30.0 | 30.0 | 30.0 |
| Secretarial Support | 5.0 | 5.0 | 5.0 |
| SALARY SUBTOTAL | 51.0 | 52.0 | 54.0 |

## TIMBER BRIDGES TECHNOLOGY TRANSFER PLAN NFS ENGINEERING BUDGET ESTIMATE

| ITEM | BUDGET BY YEAR ($1000) | | |
|---|---|---|---|
| | Year 1 | Year 2 | Year 3 |
| TRAVEL: | | | |
| ADE | 1.5 | 1.5 | 1.5 |
| Chief Structural Engr. | 6.5 | 6.5 | 6.5 |
| Tech. & Development Centers | 5.0 | 5.0 | 5.0 |
| TRAVEL SUBTOTAL | 13.0 | 13.0 | 13.0 |
| MATERIALS AND PUBLICATIONS: | | | |
| Develop AASHTO Specs. | 20.0 | 20.0 | 20.0 |
| Timber Bridge Manual | 2.0 | 2.0 | 2.0 |
| MATERIAL & PUBS SUBTOTAL | 22.0 | 22.0 | 22.0 |
| DEMONSTRATION BRIDGES: | | | |
| Construction NFS | 365.0 | 465.0 | 565.0 |
| Monitor Bridges | 30.0 | 30.0 | 30.0 |
| DEMONSTRATION BRIDGES SUBTOTAL | 395.0 | 495.0 | 595.0 |
| YEARLY TOTALS | 481.0 | 582.0 | 684.0 |

GRAND TOTAL $1,747,000

ATTACHMENT C

## TIMBER BRIDGE RESEARCH--A 4-YEAR PLAN FOR RESEARCH AND TECHNOLOGY TRANSFER SUPPORT

By

RUSSELL C. MOODY and ERWIN L. SCHAFFER
USDA, FS, FOREST PRODUCTS LABORATORY

### OBJECTIVE

This document proposes a 4-year plan for timber bridge research to be conducted by the USDA FS, Forest Products Laboratory, in cooperation with National Forest System and university cooperators. The objective of the research is to create and demonstrate new technology that will result in efficient and economical timber bridge systems that are viable alternatives to bridges made of other materials.

### BACKGROUND

For over 20 years, the Forest Products Laboratory (U.S. Department of Agriculture, Forest Service) in Madison, Wisconsin, in cooperation with the National Forest System, has been active in timber bridge research. In the late 1960's research at FPL developed improved methods for computing the distribution of loads to bridge stringers. In the early 1970's, research at FPL demonstrated the structural superiority of transverse glued-laminated (glulam) panel decks over conventional nail-laminated decks. Analytical methods were developed for the analysis and design of these decks, including steel dowel interpanel connectors. These methods were adopted by the American Association of State Highway and Transportation Officials and included in their Specifications for Highway Bridges.

These glulam decks were considered experimental at the time and FPL cooperated with the National Forest System (NFS) in designing and building a number of

Press-lam experimental bridges using this new technology. From these experiences, FPL developed a recommended erection procedure for glulam decks with dowel connectors. A recent inspection of many of these bridges determined that the they are performing well after up to 20 years in service.

In the late 1970's, a research program at FPL demonstrated that a laminated veneer lumber (LVL) product called could be used for structural applications. A short-span bridge was selected for the demonstration project. Also in the late 1970's, FPL cooperated with the Alaska Region of NFS in a study to evaluate the performance of native log stringer bridges and develop a standard method of assigning load ratings.

Currently, FPL is cooperating with the University of Wisconsin (UW) to develop new bridge technologies and with the UW and NFS to farther evaluate these concepts through experimental projects. These technologies include the stressed-deck bridge, pioneered in Canada, in which a longitudinal deck is mechanically laminated with steel rods, and the parallel-chord bridge, which is similar to the stressed-deck bridge but uses open-web construction instead of a solid deck. Demonstration bridges of both types have been built and more are planned. FPL will monitor these bridges to determine their long-term performance.

Another important project currently under way at FPL is the development of a Timber Bridge Design and Construction Manual. An NFS engineer, temporarily assigned to FPL, is writing the manual. It will include information on types of bridges, design concepts, fabrication, construction, maintenance and rehabilitation.

A listed of selected publications describing FPL timber bridge research is attached.

## PROPOSED RESEARCH

The research proposed can be categorized into two areas: One involving the development of new and improved technology for design and construction of conventional types of timber bridges and the second involving the development of techonlogy for the design and construction of innovative types of timber bridges.

In order to be considered as a candidate for further research, we believe that a bridge systems must be evaluated using the following three criteria:

A. Engineering feasibility (design and construction)
B. Economic feasibility
C. Potential benefit to the Forest Service and the timber industry

Improving conventional systems--A number of areas have been identified for improvements in design and construction of the conventional bridges built with decks and stringers made of treated lumber or glulam timber. We envision three distinct steps in the research process: (1) development of new technology thorugh research, (2) field evaluation of the new technology with experimental structures, and (3) implementation of the new technolgy into the design and construction process through modification of standards or specifications.

Following are the areas to be addressed in this area:

- AASHTO shear criteria
- Interpanel connections
- Deflection criteria
- Wearing surface performance
- Vehicle rail performance
- Attachment - glulam deck to steel beams
- Dimensional stability
- Improved construction practices

Technology for new bridge systems.--In this area, our work will build on the research completed and underway involving the stress-laminated timber deck system. There are numerous variations on present concepts that could yield more economical bridge systems. And there is more work needed to advance the stress-laminated deck concept to a point that it has accepted and published design criteria. The following identifies research needs within three categories of stress-laminated systems: (1) those with solid lumber decks, (2) those using a truss-deck system, and (3) those using other innovative approaches.

Solid lumber decks.--A few questions must be answered by research projects in the laboratory but the major need in this area is to evaluate the field performance of bridges designed and built using existing design criteria and, once these design criteria are verified, work toward implementing the criteria into AASHTO standards. In addition, improved construction practices are needed. Specific projects in this area includes:

Moisture content and creep effects
Improved construction practices
Install and monitor experimental bridges in several areas
  (Dry and wet climates, wide bridge)
Load testing of various bridge systems
Develop proposed FS and AASHTO standards, present to national
  and regional meetings

Limited work is also planned with systems that involve the use of laminated veneer lumber (LVL) in stress-lamianted decks. Our position is that the manufacturer of this material should take the lead in developing the design criteria and we would assist NFS in monitoring the field performance of one or two bridges.

Truss systems--We have completed an intital project in this area with the installation of an experimental bridge. Additional work is planned in investigating the performance of the spike-type shear connectors used in the experimental bridge. Also, an additional experimental bridge is planned using the spike connectors. Preliminary work suggests that metal-plate truss connectors are a promising approach and a research project in this area is proposed. Specific projects include:

Spike connectors
Truss-plate connectors (cyclic perf., design & capacity
Construction procedure
Experimental bridges (design and monitor)

Innovative systems--Several approaches have been proposed including composite system behavior, T-sections and reinforced timber systems. In each area, the approach will be to conduct preliminary or pilot projects to obtain enough information so that the system can be evaluated using the criteria previously noted. For innovative systems developed by others and installed on National Forests, FPL will assist in monitoring the structural performance of these systems.

Potential areas are as follows:

Composite behavior of deck and stringer
  Evaluate system potential
T- or box sections
  Evaluate system potential
  Monitor experimental structure
Reinforced timber
  Evaluate system potential

Economics Research--The procedure for evaluating initial and life cycle costs (including parameters) requires development. In addition, assistance in collecting data and providing analyses for selected bridges is essential.

Current Information Support--Publicity for research oriented experimental bridges in the Midwest will be supported by the FPL Current Information Group. It is expected that two bridges per year over a four-year period will require some video and pictorial documentation. In addition, staff time to assist on and supervise the construction of two exhibits and six timber bridge models is required.

## BUDGET

Following is the proposed budget for the ENGINEERING RESEARCH proposed:

| Item | Budget by FY ($1000) | | | |
|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 |
| Salary | | | | |
| FPL Res. Engn. (with support) | 75 | 75 | 80 | 80 |
| Supervision | 10 | 10 | 10 | 10 |
| Operating Expenses | | | | |
| Travel | 10 | 10 | 10 | 10 |
| Equipment | 20 | 15 | 10 | 10 |
| Contracts | | | | |
| Extramural with Univ. | 50 | 60 | 60 | 60 |
| Load testing | | | | 30 |
| Total | 165 | 170 | 170 | 200 |

The FPL ECONOMICS RESEARCH unit budget for accomplishment is as follows:

| Item | Budget by FY ($1000) | | | |
|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 |
| Economics Procedure | | | | |
| Staff | 50 | 30 | 10 | 10 |
| Data Collection/Analyses | | | | |
| Staff | 15 | 15 | 20 | 10 |
| Travel | 2 | 2 | 2 | 1 |
| Totals | 67 | 47 | 32 | 21 |

CURRENT INFORMATION Group Budget:

| Item | Budget by FY ($1000) | | | |
|---|---|---|---|---|
| | Year 1 | Year 2 | Year 3 | Year 4 |
| Salary | 10 | 10 | 10 | 5 |
| Travel | 2 | 2 | 2 | 2 |
| Materials | 2 | 2 | 2 | 2 |
| Contracts* | 0 | 0 | 2 | 3 |
| Total | 14 | 14 | 16 | 12 |
| YEARLY TOTALS | $246 | $231 | $218 | $233 |

FOUR YEAR TOTAL: $928,000

*For models of details of selected bridge technologies.

## SELECTED PUBLICATIONS

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Muchmore, F. W. and R. L. Tuomi. Alaska's native log bridges. Civ. Engrg. 50(2):54-55, ASCE, 1980.

Youngquist, J. A., D. S. Gromala, R. W. Jokerst, R. C. Moody and J. L. Tschernitz. Design, fabrication, testing, and installation of a press-lam bridge. USDA FS Res. Paper FPL 332, 1979.

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Moody, R. C., R. L. Tuomi, W. E. Eslyn and F. W. Muchmore. Strength of log bridge stringers after several years' use in southeast Alaska. USDA FS Res. Paper 346, 1978.

Tuomi, R. L. Erection procedure for glued-laminated timber bridge decks with dowel connectors. USDA FS Res. Paper FPL 263, 1976.

McCutcheon, W. J. and R. L. Tuomi. Simplified design procedure for glued-laminated bridge decks. UDSA FS Res. Paper FPL 233, 1974.

Tuomi, R. L. and W. J. McCutcheon. Design procedure for glued-laminated bridge decks. Forest Prod. Jnl. 23(6):36-42, 1973.

McCutcheon, W. J. and R. L. Tuomi. Procedure for design of glued-laminated orthotropic bridge decks. USDA FS Res. Paper FPL 210, 1973.

Tuomi, R. L. Advancements in timber bridges through research and engineering. In: Proc. 13th Annual Colo. St. Univ. Eng. Conf., 1972.

Bohannan, B. FPL timber bridge deck research. ASCE 8779(ST3):729-740, 1972

Erickson, E.C.O. and Romstad, K.M. Distribution of wheel loads on timber bridges. USFS Res. Paper 44, FPL, Madison, WI., 1965

31. Question: Also, for the record, please tell us what the status is of achieving strength value tables for hardwoods and the need to refine those tables through further research and monitoring efforts.

Answer: Presently, design values for lumber graded for structural use include only three hardwoods; aspen, cottonwood, and yellow poplar. Seven additional hardwood species or species groups (red maple, mixed maple, beech-birch-hickory group, mixed oaks, red oak, northern red oak, and white oak) are going through the approval process now.

The design values discussed above are based on small, clear, straight-grained material and not on full-sized lumber as it normally appears in nature with such deviations as knots, pitch pockets, or cross grain. These values tend to be conservative and thus wood structures are over-designed and require more material than might be necessary for a structurally sound timber bridge. As part of a recently concluded In-Grading Testing Program, we evaluated mechanical properties of full-sized aspen, cottonwood, and yellow-poplar lumber. Additional research is needed to integrate the knowledge gained on the In-Grade Testing Program into the design values for hardwood species and for further testing with full size samples of those species not covered by the In-Grade Program. Thus, further research is required to make structural hardwoods more economically competitive with alternative materials of construction such as concrete and steel.

## MONONGAHELA NATIONAL FOREST

32. Question: How does the current year funding level for the Monongahela National Forest compare to other national forests, nationwide?

Answer: We do not have the information at the National level to make a comparison of the Monongahela's 1988 budget with that of other forests. In gathering forest plan data from the field, we requested only a comparison of the FY 1989 President's Budget to the FY 1989 Forest Plan. The Monongahela National Forest is funded at approximately 65% of its forest plan compared to a National average of 78%.

33. Question: How does the current Monongahela funding compare to the new 10 year management plan?

Answer: In FY 1988, the Monongahela National Forest is funded at approximately 90% of the 1988 Forest Plan Funding adjusted for inflation.

34. Question: What programs are we still funding at a rate significantly less than called for in the plan?

Answer: Nationally, the 1989 President's Budget is funded at approximately 78% of the forest plan levels. The only activities funded at less than 60% of the forest plans are real estate management, recreation and FA&O construction and land acquisition. The forest plans, however, have been developed based on long-term demands, trends and opportunities. They reflect a 10-year program and optimum financing, as such, they may not recognize short-term economic conditions, annual fluctuations in demand, exogenous impacts, such as fires and floods, efficiencies and productivity increases which occur each year, nor new legislation that modifies Agencies actions. We must avoid making comparisons of plans that do not recognize short-term conditions and National priorities as well as past congressional appropriations bills. These are annual concerns and current situations that simply are not taken into consideration in a long-term plan. The President's Budget for 1989 does consider these factors and represents the best program that meets current constraints and National priorities.

35. Question: In terms of capital investments called for in the 10 years covered by the plan, what progress have we made to date and what do we have left to do?

Answer: Following is the status of items in the Monongahela National Forest, Appendix G - Ten-year Capital Investments Schedule. The Forest is currently in the process of updating this appendix.

Construction of Seneca Creek Trail (NRA) - Work has been accomplished except for bridges. Contracts will be awarded for the bridges in July.

Seneca Rocks Campground - The project has been funded and is under construction. This is now called Seneca Shadows.

Seneca Rocks Campground for Climbers - This project has been funded and is under construction.

Lake Sherwood Campground and Beach Expansion - This project has not been funded and after further review will be dropped from the amended Appendix G.

Spruce Knob Lake Campground Rehabilitation - This project has been funded and work is underway.

Laurel Fork Campground Rehabilitation - This project has been funded and the contract is expected to be awarded in September.

Stuart Campground Rehabilitation - This project has been partially funded and the contract is expected to be awarded in August.

Construction of May and West Fork Campgrounds - This project has not been funded and after further review will be dropped from the amended Appendix G.

Rehabilitation of Bear Heaven Recreation Area - This project has been partially funded and work is underway.

Rehabilitation of Big Bend Campground - Not yet funded.

Anthony Boat Launch - Not yet funded.

Horseshoe Trail Bridge - Not yet funded.

Allegheny Trail Completion - This project has been partially funded. A contract is expected to be awarded in September for two bridges.

Beaver Creek Bridge - This project has been funded and the contract is expected to be awarded in September.

Falls of Hills Creek Trail Rehabilitation - This project has been partially funded and the design contract has been awarded.

Implementation of Management Prescription 6.2 - This project has been partially funded and work will be accomplished by September.

Laurel Fork Wilderness Trails - Not yet funded.

Otter Creek Wilderness Trailheads - Not yet funded.

Laurel Crrek National Trail Bridge - Not yet funded.

Greenbrier Ranger District Office - This project was funded in FY 1987 and FY 1988. It was previously advertised but the bids were rejected. We are in the process of redesigning and the contract should be awarded in August.

Potomac Ranger District Office Addition - Not yet funded.

36. Question: How much has the State of West Virginia received over the last several years from the 25% fund payment to States? What is the amount of non-appropriated funds spent in the State over the last several years?

Answer: Following is a summary of funding the State of West Virginia has received from the 25% Fund, Payments to States and non-appropriated funding allocated to the Monongahela National Forests for fiscal years 1986-1989.

| Program | 1986 | 1987 | Est. 1988 | Est. 1989 |
|---|---|---|---|---|
| | | (Dollars in Thousands) | | |
| Payments to States, National Forest Fund | $491,263 | $469,614 | $898,060 | N/A |
| Payments to Counties, National Grasslands | 2,855 | 920 | N/A | N/A |
| Timber Salvage Sales Fund | 5,000 | 8,000 | 3,000 | 15,000 |
| Cooperative Work Trust Fund | 138,000 | 126,000 | 148,000 | 156,000 |

## TROPICAL RESEARCH INSTITUTE

37. Question: If the Committee wanted to accelerate tropical research at the Tropical Research Institute, and at other locations, what types of activities need to be accelerated? Where and at what rate?

Answer: Forest Service research has made major contributions to the body of information on the function, management and utilization of tropical forests. Nonetheless, tropical forests are disappearing at an increasingly alarming rate with harmful consequences to forest users, both local and distant, and to global environmental systems. Arresting tropical deforestation will require unprecedented political and economic commitment on the part of tropical governments and donor organizations, as well as expanded research on technical problems.

The 1989 President's Budget for the Forest Service contains approximately $2 million for tropical forest research.

Research could be expanded or initiated in the following eight general areas:

- Atmospheric sciences
- Management of tropical forests
- Tropical forest assessments
- Biological diversity and tropical conservation
- Recreation
- Forest protection
- Wood utilization
- Watershed management

In the Forest Service, research is currently centered at three main facilities: (1) the Institute of Tropical Forestry in Puerto Rico, (2) the Institute of Pacific Islands Forestry in Hawaii, and (3) the Forest Products Laboratory in Wisconsin. Wherever feasible, much of the research is done cooperatively with tropical countries in Latin America and the Pacific. Accelerated research on tropical forestry could begin as early as FY 1989, and would need to continue for at least 5 years to produce meaningful results. This research would have to be offset by funding reductions in higher priority programs.

## THREATENED AND ENDANGERED SPECIES

38. Question: The number of endangered and threatened animals and plants is increasing on the National Forests. Why is this occurring?

Answer: Throughout the United States habitats for many wildlife fish species are being adversely impacted by increasing urban development and intensified use of both agricultural and forest lands. As many wild habitats disappear or are drastically modified, increasingly many species are only found on public wildlands such as National Forests. Unfortunately, by the time a species' habitat has been reduced in size to what remains on National Forests, its numbers may become low enough to qualify for protection under the Endangered and Threatened Species

Act. Historically, approximately 22 percent of the Federal species listed annually by the U.S. Fish and Wildlife Service are found on National Forest System lands.

39. Question: What is the Forest Service doing to reverse this trend and what staffing and funds are needed?

Answer: The Forest Service has established a Threatened and Endangered Species Program to assist in the delisting of species. Through this program the Forest Service consults with the U.S. Fish and Wildlife Service to ensure our activities will not adversely impact listed species. The Forest Service also works to recover listed species in cooperation with U.S. Fish and Wildlife Service by assisting in the development of recovery plans and implementation strategies.

The 1985 RPA Program identified a need for an expanded program of inventory and monitoring for species identified as sensitive. Sensitive species are those species which have the potential of being listed and which have been identified by Regional Foresters as being a management concern. Over 262 species have been identified. The goal of the sensitive species program is to ensure that species do not become federally listed because of Forest Service actions. The 1985 RPA Program estimated a cost level of $5.1 million to accomplish this program.

## RISE TO THE FUTURE

40. Question: In FY 1988, $1.4 million was appropriated specifically to implement the new fisheries initiative "Rise to the Future". Please provide a summary of how these funds were spent, numbers of additional fisheries biologists hired and accomplishments by Region?

Answer: Funding to implement "Rise to the Future" in FY 1988 was allocated to each Region as part of their resident fisheries program. Since the 1988 program is still underway it is too early to report on how these funds were spent or specifically what was accomplished. We will provide the accomplishments of this program in the 1990 Explanatory Notes and in the 1988 Report of the Forest Service. However, planning for 1988 indicated that 3,846 acres of resident fish habitat would be treated and 3,573 structures would be constructed. A number of additional fisheries biologists are being hired.

41. Question: What progress was made in the Forest Service Research program to support this initiative?

Answer: Structures in and along stream channels, such as large woody debris, bedrock outcrops, or stream bank projections, are vital to fish habitat. Research findings to date have not only highlighted the need to maintain numerous stable structures, but have developed technology to protect naturally occurring structures and to utilize man-made structures to enhance fish habitat and riparian ecosystem stability. Also, research results have provided the information necessary to develop management options to rehabilitate and manage disturbed riparian areas. Through implementation of these management options, many riparian areas are now producing forage for livestock as well as protecting the stream channel and enhancing fish habitats.

The Forest Service has an active and productive research program to provide knowledge and technology concerning the management of the fish resource. The current, FY 1988, fish-habitat research program is funded at more than $1.7 million. The national "Rise to the Future" initiative has increased the visibility and emphasis of this ongoing research program, and that trend will be accelerated in the future.

42. Question: What are the Agency's funding and staffing needs in FY 1989 for full implementation of "Rise to the Future", both in management and research?

Answer: The 1989 President's Budget provides $5.6 million for wildlife's "Rise to the Futyure" program. The current staffing level is 71 FTE. Given other priority programs included in the President's Budget we feel this is an adequate level. We will be able to leverage this funding through the challenge cost share to complete fish habitat improvement work.

The current, FY 1988, fisheries research program funding level is just over $1.7 million. This does not include the contribution of research cooperators or the amount available through the Tongass Timber Supply Fund. The FY 1989 budget allows for a continued research effort on the highest priority problems related to the Rise to the Future initiative. Planning efforts to date have identified needs for additional information concerning soil erosion and sedimentation (Tempe, Arizona), soil stabilization technology (Corvallis, Oregon), cold-water fish habitat in the Lake States (St. Paul, Minnesota), warm-water fisheries and related wetland/timber interactions (Oxford, Mississippi), and fish habitat improvement in the Appalachians (Blacksburg, Virginia). We have not completed an analysis of the staffing needs to implement potential research capabilities. New funding would be used to strengthen existing in-house and extramural efforts.

## REPRESENTATION EXPENSES

43. Question: It is standard practice to provide some kind of financial allowance to Chief Executives to cover out of pocket costs for representation expenses at national and international meetings. Please provide for the record an estimate of your representation costs for fiscal year 1987, what is currently planned for FY 1988 and some examples of the kinds of expenses incurred?

Answer: Although our agency officials who incur such out of pocket costs do not keep detailed records of their personal outlays, results of informal polling indicate that our FY 1987 costs were around $2,500.

The following are a few examples of meetings or visits occurring in FY 1988:

-- Visit to New Zealand for consultation on national forest policies.

-- Visit to Japan for high-level exchange under U.S./Japan Natural Resources Agreement.

-- Visit to Algeria to review progress on Algeria/U.S. Friendship Forest.

-- FAO Forestry Committee meeting in Rome.

-- Visit from the President of the Society of Foresters of the Peoples Republic of China

-- Visit by officials of the Burma Ministry of Forestry

-- Visit by officials of the Singapore Ministry of Forestry

-- The hosting of a series of "brown-bag" luncheons to discuss budget and policy issues with leaders of environmental and industry interest groups.

The types of expenses typically incurred are the purchase of small, nominal-value gifts such as plaques and memorabilia for presentation to hosting officials in foreign countries. An example is the Chief's presentation of Smokey Bear christmas tree ornaments to official during the FAO meeting in Rome. In addition, foreign officials visiting the U.S. are frequently honored at coffee and tea receptions and are often treated to lunch or dinner by Forest Service officials.

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### FOREST SERVICE PILOT STUDY

The Forest Service admits that over the years a large and expensive administrative system has been built that controls both what Forest Service personnel do and how they do it. Of course, Congress played a role in building up that system through the various laws and directives which have been enacted over the years. In 1985, the Forest Service initiated a study to measure organizational effectiveness based on the eight "Properties of Excellence" stressed by authors Peters and Waterman in their book In Search of Excellence. Four "Pilot Units" were established by the Forest Service in an effort to loosen up the system. These Pilot Units proceeded to build efficient organizations from the bottom up, eliminating the time and energy once consumed in responding to the bureaucracy and focusing responses on getting the job done.

One of the more important lessons learned is that the Forest Service is its own worst enemy, with 30 to 40 percent of the administrative burdens within the control of the Pilot Units. By eliminating some of these burdens, the Pilot Units found that their personnel were able to double their productivity. In FY 1986, each of the Pilot Units experienced a budget cutback and yet met or exceeded their planned production targets.

44. Question: As a manager, do you feel adequate controls can be maintained if this system were in place service-wide?

Answer: Adequate controls can be maintained, but we will not try to control operations at the same level as we currently do. We believe we have tended to over control our people and are reexamining the level of control really needed. There is no evidence, after three years, that Pilot Units have experienced any fall down in management, or increased fraud or abuse. In fact, our financial controls are more accurate on Pilot Units than they were before.

45. Question: What do you mean when you say "building from the ground up"?

Answer: "Building from the ground up" means that although new operating environments and work conditions are established by top management, the change in actions are based on ideas from the workforce. All process changes, innovations, and reductions in red tape have come directly from the people on the ground, performing the jobs. The workforce is reacting creatively to the new work culture provided by top management.

46. Question: What would be the cost savings involved in this type of system if it were implemented system-wide?

Answer: The Ochoco National Forest saved between $160,000 to $180,000 in the first year of its Pilot Test. Assuming the Ochoco is an average size forest and assuming all national forests could operate under the same pilot conditions, the first years savings could equal or exceed $20,000,000. But equally important, are the results reflecting improved quality of work and better public service.

47. Question: What is the long term plan to expand this type of philosophy?

Answer: Top management is already sending strong signals to all units encouraging adoption of the Pilot philosophy. Results and successes from Pilot Units are being shared as we proceed. Best "promotion" is coming from the Pilot Units themselves as word is spreading.

48. Question: Has there been any discussion of making the Washington Office a Pilot Unit?

Answer: The proposal for the Washington Office to become a Pilot Unit was approved in December 1987. It is in progress and going strong. It will be a key factor in bringing our middle managers on board with the Pilot philosophy.

## 1988 FIRES

Due to the record fire season in many areas, the total cost to fight fires was over $260 million (pg. 5-37). These requirements far exceeded the $125 million appropriated in FY 1988 for this purpose. After the Forest Service utilizes the $10 million carryover balance from FY 1987, you will still be in need of an additional $125 million to cover these cost. It should be noted that the final requirements were not completely known until after Congress completed action on the FY 1988 Continuing Resolution.

49. Question: What is the status of the FY 1988 supplemental necessary to cover these costs?

Answer: The Bipartisan Budget Agreement clearly specified that no supplemental funding would be requested by the Administration, or enacted by the Congress, except in a case of dire emergency. Paying for FY 1987 firefighting costs with a new appropriation, rather than by advancing money from the KV Trust Fund, an action which would have absolutely no effect on KV program operations, clearly did not constitute a dire emergency. Thus, no FY 1988 Supplemental funding was requested.

50. Question: Please provide for the record the impact on appropriated programs, within the Forest Service, if Congress does not provide the necessary funds?

Answer: There will not be an impact on appropriated funds if the shortfall in the firefighting appropriation is not provided for through a new appropriation. The current reserve in the KV Trust Fund is sufficient to prevent any negative impacts to the anticipated KV program level in FY 1988 or FY 1989 resulting from the transfer of funds for firefighting.

51. Question: Besides fighting the fires, there will also be a great deal of ongoing rehabilitation work for the next five or ten years. Have you completed the on-the-ground assessments of the fire damage and the requirements to restore that damage?

Answer: Followup needs have been identified in the Fire Recovery Report, which is scheduled to be submitted to Congress in the near future.

The FY 1989 request for Fighting Forest Fires is $35 million. Since the FY 1987 and FY 1988 enacted levels were $125 million, and you are still short $125 million in FY 1988, this number appears to simply be a guess and doesn't seem to reflect any true analysis.

52. Question: How did you arrive at this figure? Did OMB provide some help?

Answer: In providing for FY 1988 firefighting, the Administration decided to follow recent Congressional practice, and request funding for FY 1988 firefighting costs in the FY 1989 Budget.

The Administration made its budget request in February of 1988, when 1988 firefighting costs could not possibly be known. For this reason, it was deemed prudent to use a conservative estimate of FY 1988 firefighting costs in the FY 1989 Budget. During the five-year period FY 1983 - FY 1987, the lowest fire suppression costs was $35 million in 1983, and that number was used in the FY 1989 Budget as the estimate for FY 1988 costs.

The extraordinarily dry lightning storms last August started numerous fires on the Siskiyou National Forest resulting in three major fire complexes. These were the Silver (96,540 acres), Longwood (9,916 acres) and Galice (21,140 acres). Efforts to recover Longwood and Galice areas appear to be on tract.

The Silver fire burned 45,000 acres within the unroaded area north of the Kalmiopsis Wilderness, and 51,540 acres within the Kalmiopsis Wilderness. The Forest Service is monitoring the fire area within the wilderness for its natural recovery.

53. Question: What is the recovery value of the unroaded Silver fire area?

Answer: The Silver fire recovery project draft Environmental Impact Statement estimates a maximum of $15.8 million could be generated from the harvest of an estimated 164 million board feet of timber.

54. Question: How much will this value decrease if the Forest Service takes no action during the summer of 1988?

Answer: The $15.8 million estimate could decrease by a maximum of fifty percent if no timber is salvaged until 1989.

55. Question: Does the normal administrative process for environmental work allow for the recovery of these resources?

Answer: The $15.8 million estimate is based on the completion of the environmental process with one change. The Environmental Protection Agency agreed to waive the entire 30-day waiting period following publication in the Federal Register of the Notice of Availability of the final environmental impact statement.

56. Question: How have you attempted to expedite this process?

Answer: On February 8, 1988, the Forest Service asked the Environmental Protection Agency, in accordance with 40 CFR 1506.10(d), to reduce the public comment period on the draft environmental impact statement to 30 days and to waive the entire 30-day waiting period following publication in the Federal Register of the Notice of Availability on the final environmental impact statement.

On March 15, 1988, the Environmental Protection Agency denied the Forest Service request to reduce the public comment period on the draft environmental impact statement to 30 days. However, the Environmental Protection Agency agreed to waive the entire 30 day waiting period following publication in the Federal Register of the Notice of Availability of the final environmental impact statement.

57. Question: If for some reason the salvage harvesting is delayed or restricted, how would the timber goals be met for that area?

Answer: If the salvage harvesting is delayed, the Region plans to substitute new sales for the fire salvage volume.

The ongoing fire situation throughout the fall of last year made the preparation of the FY 1988 time program more difficult than usual. You and your staff were very helpful in putting that program together and we appreciate that help.

58. Question: Now that the fires are out and work has been underway for a few months, are any Regions going to have trouble meeting their FY 1988 timber targets? If so, will these regions have trouble meeting their proposed FY 1989 timber targets?

Answer: Currently, only Region 5 and 6 will have problems meeting their FY 1988 and FY 1989 timber sale offer program.

The forest fires in Region 5 and Region 6 during the summer of 1987 significantly altered the plans and programs of the National Forest in these Regions. Manpower that normally would have been utilized to accomplish program work was diverted to fire suppression efforts. Preliminary estimates made while the fires were still burning and utilized in the planning for FY 1988, were very conservative and understated the impacts of these fires. Recent assessments have identified a greater effect upon the outyear sales preparation work.

Substantial funding adjustments were made between the 1988 President's Budget and the final appropriation in order to address some of the needs resulting from the fires. Almost 1.3 BBF of timber salvage sales were programmed for FY 1988. The total volume for both Regions was increased from 6.3 BBF to 6.9 BBF.

Total funding needs for appropriated timber sale activities and engineering support were reduced by $20.4 million and $9.4 million respectively. The Timber Salvage Sale Fund was increased from $18.6 million to $61.4 million. Congress funded the 1988 Timber Salvage Fund to include the expenditure for resource and engineering support, and maintenance.

Recently, both Regions have made substantial adjustments in the priority of work for their programs in order to meet some of the additional funding needs to keep the flow of new sales preparation work sufficient to meet future program levels equal to the pre-FY 1988 program. Even with all of the adjustments and reprograming authorizations, it is currently estimated that the Regions will still be short by 700 million to 900 million board feet of new sales for FY 1989 and FY 1990.

## RECREATION AND WILDLIFE COST SHARE

In FY 1988, Congress provided the Forest Service with $500,000 for a pilot program to plan, construct, reconstruct, and maintain or operate recreation sites and areas (pg. 5-7). These funds were to be supplemented with a match from private individuals, groups, and other local, State and Federal agencies. To date, the investment has been matched with $900,000, which is a 182 percent return on the investment. The Forest Service is proposing a similar $3.0 million program in FY 1989.

59. Question: Has there been a broad array of contributors, locations, and proposals?

Answer: Yes. Over 100 private organizations, government agencies, and individuals have pledged contributions of cash, labor, and materials for 30 projects on 27 National Forests. Contributors included conservation groups, chambers of commerce, schools, organizations of disabled individuals, veterans groups, interpretive associations, and private businesses. There were 124 proposals submitted. The proposals included projects such as the reconstruction of boat ramps, picnic areas, trails, foot bridges, historic structures, and the modification of facilities on forests to provide barrier-free access for disabled persons, and the development of interpretive displays.

60. Question: How does the FY 1989 proposal differ from the FY 1988 plan?

Answer: In FY 1988, $500,000 was appropriated for recreation operation and maintenance projects. For FY 1989, in addition to funding more operation and maintenance projects, we plan to expand the program to include a full spectrum of recreation projects, and plan to increase the funding to $3,000,000. We have included $1,000,000 to fund recreation facilities and trail construction projects, $1,500,000 for general recreation, wilderness and cultural resources management projects, and $500,000 for trail maintenance projects.

61. Question: How does the Forest Service prioritize the proposals?

Answer: In FY 1988, a National selection team reviewed the projects and made recommendations based on project visibility and National need, public support, monetary return on Forest Service investments, partner diversity, and to a lesser extent, geographic diversity. A final selection was made based on the team's recommendation. For FY 1989, it is anticipated that project evaluation criteria will be similar, but that project selection will be made partially or completely at the Regional level.

62. Question: $2.0 million was appropriated in FY 1988 for a cost share program in wildlife (pg. 5-8). The Forest Service is proposing to increase this amount to $5.0 million in FY 1989. Has the wildlife cost share program been as successful as the recreation cost share program?

Answer: The wildlife and fisheries cost share program has been in existence since FY 1986. From the growing numbers of cooperators and increasing contributions to share in the funding, the program is considered successful. In fact, the initial successes of this program have set a pattern that is being followed by other resource areas, such as the recreation program.

## LOCATABLE MINERALS

You have requested an increase of $1.2 million (+10 percent) in the locatable minerals program (pg. 5-18). The caseload is expected to increase by 50 percent (6,735 in FY 1988 to 9,987 in FY 1989) and is attributed to the upturn in activity in precious metal operations.

63. Question: How do you compute the funding necessary for this program?

Answer: The values included in the budget request are a compilation of the data from individual National Forests and Regions. The values are based upon anticipated caseloads and the degree of difficulty involved in the administration of the cases.

## LAND EXCHANGE AND ADJUSTMENT

In FY 1989, you are anticipating an increase of 27,000 acres (+40 percent) in the Land Exchange Program (pg. 5-21). This program is used by the Forest Service to improve landownership patterns with a minimal impact on the Federal budget. Exchanges are a means of solving problems caused by fragmented ownership.

According to your justification, one of the most significant savings resulting from exchanges is in reduction of miles of Federal property line, thereby lessening the cost of property line location and maintenance, and the risk of trespass. Completion of this recommended program for FY 1989 could result in land line survey cost savings of about $5.0 million. Since the program request in FY 1989 is only $5.7 million, this program almost pays for itself.

64. Question: Is there a large backlog of work in this program that is not funded in FY 1989?

Answer: Although not considered a backlog, an estimated 2 million acres of National Forest System lands are suitable and available for exchange. Of this number, approximately 650,000 acres are currently involved in land exchange proposals and are in various stages of processing, from the earliest stages of discussion to near completion of the transaction. At the average rate of accomplishment, it will take about 6 years to complete the cases currently in process.

65. Question: What was your request of OMB for this program?

Answer: The FY 1989 USDA Request was $7,046,000 for the land exchange program.

## FIRE PRESUPPRESSION

In FY 1989 you are proposing a decrease of $10 million (-6 percent) from the FY 1988 enacted level in fire presuppression (pg. 5-34). The justification indicates that the presuppression emphasis will be on higher benefit-cost ratio activities in FY 1989.

66. Question: Was there something in particular the Forest Service learned during last year's fires which led you to this reduction?

Answer: No. However, the Bipartisan Budget agreement between the Administration and Congress underscored the continuing need for deliberate reductions in government spending. The FY 1989 Budget for the Forest Service accomplished this objective through a slight decrease in overall funding, while also accomplishing reductions in specific programs areas, include fire presuppression, based on difficult, but necessary choices.

The FY 1989 President's Budget allows for the completion of high priority presuppression work including, critical initial attack forces, selected deployment, high priority positioning, rapid mobilization of national shared forces. Prevention and early detection in high resource value areas will reduce the number of the most potentially damaging fire starts, limit fire size and, reduce resources losses.

67. Question: What won't be done or will be delayed in FY 1989 because of this reduction?

Answer: The reduced funding may reduce overall protection capability.

68. Question: The fire presuppression program has been steadily increasing from $138 million in FY 1986 to $143 million in FY 1987 to $158 million in FY 1988. Since the FY 1989 request is $148 million, I am curious to know if there has been a change in emphasis for this program?

Answer: There has not been a change in emphasis in the program. The program level provided is directly linked to available Federal funding.

## MINERAL RECEIPTS: NET VS. GROSS

I do not have a question on this particular subject but I would be remiss if I did not at least mention it.

For the past several years, the Administration proposed to deduct on-shore leasing costs of MMS, BLM, and the Forest Service from Federal onshore mineral leasing receipts before receipts are distributed between the Federal treasury and the States. Congress rejected that proposal every year and I note it is not included in the FY 1989 Budget. Don't misunderstand me, the budget is far from perfect and Congress will provide additional guidance. Nonetheless, this is a step in the right direction. More importantly, I will not ask why this proposal was dropped in FY 1989 and not FY 1982, I am just pleased to see that it was dropped.

## ROAD MAINTENANCE

The justification indicates that 6,500 miles of existing roads not previously included in the forest development road system are being added to the system in FY 1989 (pg. 5-43).

69. Question: How were those roads classified in FY 1988? Where were they? Was there a cost to the government for these roads?

Answer: These roads had no formal classification since they were not on the transportation system inventory. Many of these low standard roads came about through use or construction prior to the creation of the National Forests and had not previously been part of the forest development road system, since no appropriated expenditures had been recorded for them. They were commonly referred to as "woods roads" or "old mining roads." Implementation of forest plan direction including the associated transportation area analysis, has resulted in many of these roads now being added to the transportation system inventory. Most of the 6,500 miles were added to the transportation system inventories of Regions 4, 8 and 9.

## TRAIL MAINTENANCE

In FY 1987, there were 20.4 million recreation visitor days (RVD's) spent hiking and horseback riding on National Forest System trails.

In FY 1988, Congress increased the budget for trail maintenance from $11.0 million to $20 million. For FY 1989, the Administration has proposed $15.6 million for trail maintenance. This includes $500,000 for a challenge cost-share program.

While your request is below the FY 1988 enacted level, it is an increase over your FY 1988 request and I appreciate your effort.

70. Question: What is the most efficient amount you can use annually on trail maintenance?

Answer: The Administration's request will be sufficient and efficient to provide for the basic program needs to keep pace with increased trail use. As in previous years, we will continue our successful trail volunteer program which provides labor and other support. In future fiscal years, the direction in the forest plans will provide a reference point for determining efficient funding levels.

71. Question: If the challenge cost share program is extremely popular, will you direct additional funds in FY 1989 to this pilot project?

Answer: Due to the pilot nature of our FY 1989 recreation challenge cost share program, we do not plan to direct from a National level, more than $500,000 to the trail maintenance program. However, the Regions and Forests do have the option to utilize the trail maintenance funds allocated to them in FY 1989 for additional challenge cost share trail projects. A full report on the Trails Program will be provided to Congress in accordance with direction contained in the 1988 Senate Report.

## VOLUME UNDER CONTRACT

During this hearing over the past couple of years you have indicated that 2 1/2 to 3 years of volume under contract is an acceptable amount for a national total. Regional numbers may vary slightly.

In a recent publication, you indicate that 2 years of volume under contract is desirable.

72. Question: Is this slight decrease a shift in policy?

Answer: There is no policy question involved, it is simply a factual assessment of circumstances. At least two years supply of uncut timber volume under contract to timber purchasers is considered the minimum amount for a desirable situation on a National Forest. However 2 1/2 to 3 years provides a more comfortable margin.

If less than 2 years supply is held, some of the purchasers on a Forest are likely to be pressed to buy enough volume to keep going. Conversely, when substantially more than 3 years uncut volume under contract exists, some purchasers are likely to have difficulty meeting their contractual obligations before the contracts expire. In recent years, sales of smaller sizes, with shorter contract terms, and changes in payment schedules have slightly reduced the need for volume under contract. Also, there are more frequent opportunities to buy. Regardless of the general description implied by the averages, there is no assurance that individual purchasers will have the supply they need on a given National Forest.

73. Question: Can you provide for the record the forests where the amount of volume under contract is a serious concern?

Answer: National Forests where lack of timber under contract may be considered a problem are as follows:

| | FORESTS | YEARS OF VOLUME UNDER CONTRACT |
|---|---|---|
| REGION 1 | BEAVERHEAD | 1.8 |
| | BITTEROOT | 1.3 |
| | CUSTER | 1.1 |
| | GALLATIN | 2.0 |
| | LEWIS & CLARK | 2.1 |
| | LOLO | 1.3 |
| REGION 2 | BIGHORN | 2.0 |
| | SHOSHONE | 1.5 |
| REGION 3 | CIBOLA | * |
| | KAIBAB | * |
| | LINCOLN | * |
| | SANTA FE | 1.3 |
| | TONTO | * |
| REGION 4 | TARGEE | 1.5 |
| | SALMON | 0.9 |
| REGION 5 | (NO APPARENT PROBLEM) | |
| REGION 6 | DESHUTES | 1.7 |
| | FREMONT | 1.7 |
| | MALHEUR | 2.0 |
| | MT. BAKER-SNOQUALMIE | 1.6 |
| | MOUNT HOOD | 1.7 |
| | SISKIYOU | 1.8 |
| | WILLAMETTE | 1.8 |
| | WINEMA | 1.7 |
| REGION 8 | (NO APPARENT PROBLEM) | |
| REGION 9 | ALLEGHENY | 1.3 |
| | CHIPPEWA | 2.1 |
| | OTTAWA | 1.8 |
| | HURON-MANISTEE | 2.0 |
| | MARK TWAIN | 0.9 |
| | HIAWATHA | 2.0 |
| | SHAWNEE | 2.1 |
| | WAYNE-HOOSIER | 1.5 |
| REGION 10 | (NO APPARENT PROBLEM) | |

* Forests with less than 2 years of volume under contract but represents no apparent supply problems.

## OFFER VOLUME VS. HARVEST VOLUME

There are a variety of factors that should be used to determine the amount of timber that should be offered every year. This includes the amount of imports, the anticipated demand for wood products, and the amount of timber under contract. A particularly meaningful measure was discussed at last years hearing and compares the three previous years of harvest volume to the three previous years of offer volume. In response to a question for the record at last year's hearing, the Forest Service indicated that the offer volume should exceed the harvest volume by 1/2 to 1 percent over a three year period.

According to your response, from 1985-1987 the offer volume totaled 34.4 BBF and the harvest volume totaled 34.2 BBF. The differential between harvest and offer volume is between 1/2 to 1 percent, an acceptable level, according to your measurements. This year's justification, however, indicates that for 1986-1988 the offer volume will be 34.7 BBF and the harvest volume will be 36.3 BBF for the same period. During this time period the offer volume will be below the harvest level by 6 percent.

In fact, if we were to use this measurement as our only calculation for the FY 1989 offer volume, we should offer at least 12.9 BBF.

74. Question: Do you no longer feel that volume should exceed harvest for any period of time? If not, why not? If so, why do you no longer use the 1/2 to 1 percent target? If 1/2 of 1 percent is acceptable and we are outside that range, how, and at what point will you propose to move back into that range?

Answer: Over time, the volume of timber sold from the National Forests should exceed the volume harvested. This provides for maintaining an adequate available timber supply, with some margin for volume that defaults unharvested. While a 3-year rolling, total volume sold to total volume harvested comparison is a meaningful measure of overall program direction, it needs to be used in context with other indicators.

The annual volume sold from the National Forests has remained very steady over the last 10 years, rarely deviating from the average of 11 billion board feet (BBF) by more than ± .4 BBF. Annual harvest volume on the other hand is quite cyclical in nature varying from the average of 10 BBF by as much as ± 3 BBF.

The comparison of the 3-year sold and harvested volumes will continue to be used as a measurement of program direction. However, it will be used in conjunction with other measures, such as total volume under contract, projected housing starts, and anticipated log exports. If all these measures indicate that the over-all short term available supply of timber is falling below a desirable level, an increase in the timber sale program, within the boundaries of the Forests capabilities, would be considered.

In the past, the number of housing starts was the most widely used gauge of demand for wood products. Most recently, the total consumption of timber is made up of a variety of factors, including housing starts, remodeling and renovation of houses, non-residential construction, and exports. Since the recession of 1982, total consumption has increased from 32.5 billion board feet to 47.2 billion board feet in 1986. The variety of factors making up total consumption is not about to begin a decline and many experts feel that it will continue to increase.

I understand the importance of a consistent offer level for planning purposes. I am concerned however, when the Forest Service chooses to ignore the most logical statistic in the analysis: demand.

75. Question: Do you and I use different factors to determine the offer volume?

Answer: We agree that market demand, based upon housing starts and long term loan interest rates, should help to determine the volume of timber consumed in this Country. There are also many other rather complicated factors that influence what timber consumption might be.

In the past five years, we have seen such things as foreign exchange rates, changes in tax laws, amount of material consumed, housing starts, and the amount of material used in remodeling, play important roles in the amount of timber produced and consumed. In turn, each of these factors have played a part in determining what timber volumes are produced from National Forest lands.

We also look at the changes we have made in the timber sale contracts, the amount of timber under contract, and the amount of timber we have offered over time verses the amount harvested. These factors also play a major role in determining the level of timber sales to be offered. In addition, how much the Federal government can afford to produce, given limited funding and competing uses, is a consideration. We believe we have looked at all of these factors and have presented a budget that is reasonably balanced given all of these considerations.

76. Question: What was your request of the Department? OMB?

Answer: The Forest Service's recommended program for timber sale preparation and offer was 11.207 billion board feet. Neither the Department or OMB changed the Forest Service request.

77. Question: Could you briefly walk the Committee through the process used to arrive at the offer volume?

Answer: As part of the budget formulation process, the Washington Office requests from the Regions, a range of alternatives which have different offer levels. Based upon field requests to implement the forest plans, National alternatives are developed which are framed by both Agency and National funding goals and objectives. Within this framework, the Forest Service proposes an Agency Request which attempts to balance all resource needs, implement forest plans and maximize outputs.

The Agency Request for timber offer considers available funding, the U.S. Government's need for revenue, the local (County) need for revenue, the public need for services (firewood, Christmas trees and other miscellaneous permits), the sustained yield capability of the available land base (based upon Land Management Plans), the projected timber harvest levels (volume under contract), the cashflow of the Regional requests and the Regional unit costs.

## REFORESTATION

The justification indicates that as of October 1, 1987, 1.1 million acres of NFS land needed reforestation because of timber harvest, natural disasters such as fires, storms, and insects and diseases. With the ongoing work in FY 1988 and the planned work for FY 1989, the reforestation needs will increase to 1.2 million acres. Last year's justification indicated that 1 million acres was an acceptable level.

78. Question: How do you plan to reduce the reforestation needs back to the 1.0 million acre level?

Answer: The large increase in additional inventory of reforestation needs was due to the severe fires of 1987. We will consider using appropriated and KV reforestation over the next several years to reduce these acres of reforestation.

79. Question: Can you explain what you mean on page 5-65 when you state that a "shortage of trees and seed preclude increasing the target?"

Answer: Because of planned increases in the KV reforestation program and the limited amount of seed sources in the nurseries, Regions were not able to increase their appropriated reforestation program above those projected when the forest fires of 1987 destroyed over 100,000 acres of plantations. The Regions did not have sufficient seed stock available or seedlings in the nurseries to properly plant these additional areas.

80. Question: If the proposed $7.5 million reduction in the appropriated reforestation account was restored, what would the balance be at the end of FY 1989?

Answer: The addition of $7.5 million would reduce the total inventory at the end of 1989 by about 10,500 acres leaving a total of 1,202,000 acres.

## INDUSTRY VS. ENVIRONMENTALISTS

Over the past few years the various organizations representing both side of the timber road issue have been making charges that simply do not completely portray the situation. These inaccuracies may sell memberships for the respective organizations, but they do not help the Forest Service manage the forests nor do they help small communities plan for the future.

Most recently, an industry group issued what is commonly known as a "white paper" which analyzed the FY 1989 budget of the Forest Service. Unhappy with that analysis, a large environmental group responded with a letter to various editors across the country challenging the assertions made in the industry publication.

Since I am in Idaho fairly often, I have the opportunity to meet with small communities dependent on timber and know what they think about this type of effort. I would, however, like to hear your analysis to a couple of assertions.

One of the most humorous arguments is one of receipts. Industry reports that the timber program returned $546 million to the U.S. Treasury. The environmental organization indicates that nothing could be further from the truth and over the past five years, the federal government lost $2.0 billion from timber sales on National Forests.

81. Question: What were the total costs associated with the FY 1987 timber program?

Answer: The timber program is quite complex, and there are a number of different conceptual approaches which can be used to address it. In another two or three years, reliable data will be available from the Timber Sales Program Information Reporting System (TSPIRS), which addresses the multi-year aspects of the timber program. While there will still be differences of opinion on how to analyze the information, it will at least provide a uniform information base.

In the meantime, there are several approaches which have been undertaken to address timber program costs. Each has its own limitations as well as the common inability to address the multi-year aspects of the program.

The table on page 5-56 of the 1989 Explanatory Notes is one commonly used array of timber costs. It shows a total cost of $479,162,000 for FY 1987. The table is meant to show only those costs associated with actually offering timber for sale and administering the harvest. It does not include reforestation and timber stand improvement costs provided through appropriations and the reforestation trust fund, nor does it include items such as land line location, road maintenance, and general administration which are partially allocated costs in TSPIRS. Finally, receipt financed activities, such as brush disposal and the KV Trust Fund are not included.

If all of the items recognized as timber costs in TSPIRS were counted, total FY 1987 timber program costs would exceed $900 million. However, we do not believe it appropriate to use such an all inclusive approach outside the TSPIRS framework, which allocates costs associated with long terms investments such as roads and reforestation into a cost pool which is expensed as timber is harvested over the rotation age of the forest.

The table on page 5-56 does not show Payments to States from timber receipts. These amounted to $271,739,000 in FY 1987. Some argue that, while not a direct cost of offering timber sales, Payments to States, is analogous to a tax on a corporation's profits. Just as taxes diminish the earnings which can be distributed to corporate shareholders, so Payments to States reduces timber program "profits" going to the Federal Treasury. Others argue, that Payments to States is another payment in lieu of taxes program designed to compensate local governments with a minimal tax base due to large Federal landholdings which require local government expenditures for law enforcement, road maintenance, etc. While they acknowledge that the payments are an expenditure required by statute, they maintain that timber receipts are merely a measuring device to determine an appropriate amount of Federal assistance. In the TSPIRS approach, Payments to States are not included in the direct timber costs, but they are displayed.

82. Question: What is the amount of timber receipts in FY 1987?

Answer: Timber receipts from the National Forest Fund were approximately $786 million in 1987. Additional receipts from KV, timber salvage sales, Oregon and California Grant Lands and the Tongass Timber Supply Fund brings the total to over $1 billion.

In a situation of declining or stagnant budgets, Congress is always looking for creative ways to fund programs. Currently, timber receipts are returned to the Federal treasury after State and local governments are given their share.

83. Question: Since there are excess receipts in the timber program, how would you feel about legislation requiring the timber program to fund itself and a variety of other programs (for instance, trail maintenance, wildlife and fish habitat management, range management) at levels higher than we are currently appropriating?

Answer: The question presumes that timber receipts are deposited in the Federal treasury after State and local governments are given their share, and that amount could be used to support other activities. This would not always be a dependable funding source. For example, if the broad array of timber related program costs shown in TSPIRS were fully funded from timber receipts, in recent years there would not have been enough left to make the full payments to the State and local governments, let alone fund other activities. We believe the current approach gives maximum flexibility in establishing decisions on the discretionary activities to be made each year based on an examination of National needs and priorities rather than on the level of timber receipts.

## FOREST ROAD CONSTRUCTION

The FY 1989 Budget includes $196.8 million for forest road construction.

84. Question: Please provide for the record a list of non-timber road projects proposed in FY 1989.

Answer: In the FY 1989 proposed program, about 13 percent of the construction is programmed for recreation and general purpose roads. Most is in reconstruction, which reflects the growing backlog of rehabilitation needs resulting from sustained high use by the public. These roads are concentrated in high-use areas and are generally paved or gravel surfaced. A detailed project listing by Forest and project will be provided.

## HARVEST ADMINISTRATION

You have requested an additional $18 million (+40 percent) for harvest administration in FY 1989. This increase is a result of the anticipated high timber harvest levels caused by strong demand for national forests timber.

85. Question: Can you explain some of the workload estimates used to derive this figure?

Answer: The total timber sales administration and management costs necessary to provide for the full range of activities that were estimated in the FY 1988 President's Budget was $59,459,000. The final sales administration funding was reduced to $57,738,000. These are the cost figures that should be compared to the FY 1989 estimated needs, rather than the $44,818,000 figure shown in the Explanatory Notes. The lower number shown for 1988 was the result of the 1987 fire salvage adjustments.

Each national forest determines what their projected total sale administration costs will be, based on the number of active timber sales and permits that are available for harvest activities. There are a number of factors that are used to help determine what the costs will be. Each timber sale contract and permit varies in the size of document from 1 page to over 100 pages of requirements and specifications. The more complicated the terms and the more the activities, the more time and effort it takes to perform the sale administration. There are specific sets of standard for inspections for each type of sale and permit based on these requirements and degrees of activity.

Currently, there are about 500,000 to 600,000 timber sale contracts and permits per year that require periodic inspections. There are over 200,000 to 300,000 free-use permits that also require periodic inspection. Included in the former number are 15,000 to 20,000 sale contracts that produce in excess of 80% of the total volume harvested. While these sale contracts require constant field and office review during the operating season, all of the remaining sales and permits must be inspected on a regular basis. Also, there are over 1000 timber sale contracts that have had the terms extended for 5-7 years. These sales are active and inactive, but they require additional work to keep them in conformance.

If it could be assumed that every timber sale would be operated well within the terms of the contract provisions, the total cost of sale administration could be reduced. The costs of law enforcement, surveillance, log accountability, and other enforcement activities must also be added to the total cost estimates for sale administration. The more cases that we find with evidence of waste, fraud and abuse, means more time and effort is needed to determine the full extent of the problems. The amount of timber sale administration work regarding defaults, appeals, and litigations has continued to increase over the past years. Forests must plan more and more time to prepare for the settlement of these cases. Each case requires a great deal of time and effort in the field and in the office in order to deal with the contractor and other case related officials.

## ALLOWABLE SALE QUANTITY

86. Question: Does your budget request contain adequate funding to prepare and sell the Allowable Sale Quantity (ASQ) for each national forest with an approved final forest plan?

Answer: No, the FY 1989 timber sales program provides for the full funding to sustain an 11.207 BBF program in 1989 and beyond. The total estimated potential yield/Allowable Sale Quantity for the National Forests is approximately 12.0 BBF.

87. Question: If not, how much less than necessary?

Answer: The final timber sale level in the President's Budget for FY 1989 is approximately 93% of the estimated Allowable Sale Quantity.

88. Question: Were the individual forests instructed to request full funding and, if so, did your request to OMB contain that level of funding?

Answer: One of the program levels the National Forests were requested to build, was a level that would equal their currently approved forest land management plan for the timber sales program. This was used as a guide in the development of all other alternatives. This program level was not submitted to OMB.

TIMBER VOLUME SOLD

89. Question: How much of the volume offered for sale during the past few fiscal years was not sold?

Answer: Following is the total volume offered and sold for fiscal years 1983-1987, in billion board feet:

| | 1987 | 1986 | 1985 | 1984 | 1983 |
|---|---|---|---|---|---|
| Offered | 11.5 | 11.7 | 11.5 | 11.9 | 11.3 |
| Sold | 11.3 | 11.0 | 10.8 | 10.7 | 11.1 |
| Not Sold | .2 | .7 | .7 | 1.2 | .2 |

90. Question: How has the actual harvest of timber from the National Forests compared to volume actually sold during those same years?

Answer: Following is the total volume sold and harvested for fiscal years 1983-1987, in billion board feet:

| | 1987 | 1986 | 1985 | 1984 | 1983 |
|---|---|---|---|---|---|
| Sold | 11.3 | 11.0 | 10.8 | 10.7 | 11.1 |
| Harvest | 12.7 | 11.8 | 10.9 | 10.5 | 9.2 |

91. Question: In other words, have we been funding a program adequate to replace what is being removed from the contract inventory?

Answer: Yes, we have been funding an adequate program.

92. Question: What is the current level of volume under contract compared to harvest levels?

Answer: Following is the current level of volume under contract compared to harvest levels for fiscal years 1984-1987, in billion board feet:

| | 1987 | 1986 | 1985 | 1984 |
|---|---|---|---|---|
| Harvest | 12.7 | 11.8 | 10.9 | 10.5 |
| Under Contract | 25.1 | 25.98 | 38.1 | 37.9 |

93. Question: Do you consider this to be adequate or is it becoming rather marginal?

Answer: From a National perspective, we believe the volume under contract is adequate.

DEPENDENT COMMUNITIES

94. Question: You recently completed a study on three so-called "dependent communities" to determine how the local economy is affected by the presence of the forest products industry. Can you tell me a little about how the study was done and the results?

Answer: Three community case studies were developed as a part of the Forest Service's ongoing concern to define and evaluate the socioeconomic relationships between national forest natural resource programs and policies and communities adjacent to National Forests. The case studies illustrate how national forests resource programs contribute to local economies, in addition to returning revenues to the Federal treasury.

Contributions of national forests resource programs which include range, recreation, minerals, timber, and human resources were evaluated for each community.

A set of criteria were developed in choosing the case study communities. All three communities are relatively isolated, have a mixture of resource programs which contribute to the local economy, and two of the three communities are retail trade centers for the surrounding county(s). The three communities are Council, Idaho, adjacent to the Payette National Forest; Dillon, Montana, adjacent to the Beaverhead National Forest; and Springerville/Eager, Arizona, adjacent to the Apache National Forest.

Site visits were made to each community. There was not any modeling involved in these case studies; a list of questions for each resource program was developed. Primary data were obtained for 1987 from Forest Service records, from local mills, ranching, minerals, and/or recreation personnel. Current (1987) direct industry jobs and income were determined for each community. Services sectors jobs and income (secondary impacts) of Forest Service programs were not estimated.

The findings of the case studies are as follows.

1. Forest Service resource outputs contributed from 50 to 100 percent of the communities' total natural resource use in 1987. The national forest livestock grazing use, of total grazing use, varied from 50 to 70 percent. National forest timber accounted for 73 percent (Dillon) to 100 percent (Springerville/Eager) of total logs processed at local mills.

2. A low of 18 percent (Dillon) to a high of 72 percent (Council) of total community jobs were associated with national forest resource programs in 1987. The majority of these jobs were full-time industry jobs and paid higher-than-average wages in the communities.

3. Income earned by national forest related employees ranged from a low of $3.5 million (Council) to a high of $14 million (Springerville/Eager) in 1987.

4. The 25 percent revenue sharing payments contribute from approximately 16 percent (Dillon) to 25 percent (Springerville/Eager) of the total county road budgets and from 1.5 teacher's salaries (Council) to 5 teacher's salaries (Springerville/Eager) in the communities' school districts.

5. Forest Service resource programs return resource revenues and Federal employee taxes to the Federal treasury in the range of $260 thousand (Council) to $1.5 million (Springerville/Eager). These dollars do not include income taxes paid by persons employed in the national forest related jobs and industry business taxes.

6. The national forests varied in the financial status of the timber sales programs. Based on the preliminary 1987 TSPIRS Report 1, the Apache National Forest had a net positive program, the Payette National Forest had a break-even program, and the Beaverhead National Forest had a net negative program.

95. Question: Do you intend to expand this program to cover your published list of dependent communities?

Answer: The Forest Service is in the process of studying the issue of "community dependency" or "community development" as it relates to our resource programs and policies. The case studies will not be expanded to cover the 1987 updated list of timber dependent communities at this time as we are still looking at alternative definitions and/or measurements of resource-dependent communities.

## TIMBER SALES ADMINISTRATION

96. Question: Your recommendation for FY 1989 timber sales administration and management funding is higher than either the FY 1987 and FY 1988 levels even though your proposed timber sales level is lower. Is this because the FY 1989 timber sales program has a higher portion of new sales rather than resales?

Answer: Yes, the proposed FY 1989 timber sales program has only 1.0 BBF of reoffer sales compared to over 2.6 BBF for both 1987 and 1988. The FY 1989 program has more new sales, less salvage sales and higher costs to complete the replacement of the reoffer sales and higher administration costs than were provided for in either 1987 or 1988.

97. Question: When will the resales finally work their way through the system so that they are no longer influencing your unit costs?

Answer: The final reoffer program will substantially be completed in FY 1989. Because of the current fire salvage situation in Regions 5 and 6, there could be about 300-400 million board feet still needing to be offered. The total cost of the replacement of the reoffer volume will be completed in FY 1990.

## FOREST ROAD PROGRAM

98. Question: Your recommendation for Forest Road program funding is higher than the FY 1988 level but lower than FY 1987. Is this related to the adjustments made to the FY 1988 program last year as a consequence of the fire rehabilitation situation?

Answer: Yes. The increased funding for road construction in FY 1989 when compared to the FY 1988 level is partly related to the fire salvage program. The FY 1988 Fire Salvage fund included $9.4 million for engineering support to the salvage program. The funds are in the Forest Road Program in FY 1989 to support green sale volume for out years.

Also, in FY 1988 Congress transferred $18.5 million from the Forest Road Program to Road maintenance for fire damage repair, engineering support and the restoration of existing roads. This decision was not made until after the President's FY 1989 budget proposal had been prepared, therefore, the road restoration funding and engineering support are included in the Forest Road Program rather than the road maintenance program.

## 1988 HARVEST LEVELS

99. Question: At the outset of FY 1987 you estimated an annual harvest of 11.8 BBF while the actual harvest was 12.7 BBF. What is your current estimate of the FY 1988 harvest.

Answer: We are currently estimating the total timber harvest level to be at least 12.2 BBF. At the end of the second quarter, the total timber harvest is estimated to be equal to the second quarter of FY 1987.

## TIMBER SUPPORT

100. Question: How much money is proposed in FY 1989 for "timber sales support" from other resource groups?

Answer: The cost of the timber sale support program is $33.7 million in order to prepare and offer an 11.2 BBF in FY 1989 and beyond.

101. Question: What do these funds pay for, and do the other resource programs actually benefit from these expenditures?

Answer: These funds are for the resource specialists who provide the technical efforts necessary to resolve the environmental issues regarding the harvest of national forest timber. These specialists provide the direction that will mitigate resource impacts and provide measures which will enhance resource needs. Cultural resources, wildlife, fisheries, soil and water issues are fully addressed early in the timber sale planning process to enable completion of the needed inventory, environmental analysis and public review. Appeals and litigation have substantially increased the need for gathering more and more information and public review.

## BUDGET VS RPA

102. Question: Your budgets have been criticized for being "out of balance." How does the FY 1989 proposal compare to the RPA Program goals in major program areas?

Answer: Following is a comparison of the 1989 President's Budget with the 1989 Low Bound and High Bound RPA.

1989 President's Budget Compared to 1989 RPA Program
(Millions of 1989 Dollars)

| | 1989 Request | RPA Low Bound | RPA High Bound |
|---|---|---|---|
| Research | $ 129.3 | $ 120.8 | $ 139.5 |
| State and Private Forestry | 34.8 | 25.8 | 87.3 |
| National Forest System 1/ | 1,190.3 | 1,000.4 | 1,470.1 |
| Construction | 204.0 | 210.1 | 275.8 |
| Land Acquisition 2/ | 5.2 | 5.5 | 38.3 |
| Permanent App-Working Funds | 138.3 | 145.7 | 152.2 |
| Permanent App-Pmts to States | (306.4) | -- | -- |
| K-V and other Trust Funds | 267.7 | 223.5 | 262.4 |
| Construction of Roads by Timber Purchasers | (125.4) | (127.5) | (263.6) |
| TOTAL | $1,969.6 | $1,731.8 | $2,425.6 |

1/ Includes Reforestation Trust Fund, Range Betterment Fund, and Operation and Maintenance of Recreation Facilities. Excludes Fighting Forest Fires.

2/ Includes Acquisition of Lands for National Forests, Special Acts and Acquisition of Lands to Complete Land Exchanges.

## VOLUME UNDER CONTRACT

103. Question: Your 1987 Annual Report shows that timber volume under contract is continuing to drop. I have heard from industry representatives that the amount of volume under contract is precipitously low in some areas. Notwithstanding the changes you have made to the timber sales contract,

are we at risk of creating another problem as a result of desperation bidding?

Answer: The primary changes that have been made in the contract are designed to encourage early harvest and discourage holding contracts for extended periods of time. Contract lengths have been shortened and it is more costly to acquire and hold a timber sale contract. Regardless of these measures, if demand for timber products remains high and harvest levels from the National Forests exceed sell levels, volumes under contract will drop and prices bid for new sales will go up. Additionally, if timber sale purchasers anticipate future supplies will be limited, they will bid accordingly. However, the wood products market is very cyclical and a reduction in demand can be expected. As this occurs, harvest levels will decline, volumes under contract will increase and stumpage prices will drop. A uniform, predictable program of timber sales from the National Forests is the best preventive measure against speculative bidding.

104. Question: Perhaps, more importantly, is the low level of volume under contract exacerbating the conflicts caused by forest plan and timber sales appeals by shortening the time available to you to work out these controversies?

Answer: Appeals lengthen the time required to get a sale to market. As high harvest levels reduce the supply of available timber, pressures increase to maintain a reliable and uniform timber sales program.

105. Question: Given the delays caused by appeals, is it really reasonable to ask industry to accept a shorter contract length and lower volume under contract?

Answer: Shorter contract periods are designed to encourage early harvest and prevent the holding of large volumes of timber under contract for long periods of time for speculative purposes. Shorter contract periods do tend to limit the amount of timber that any purchaser can hold under contract at a given time. Shorter contract periods also places more pressure on the Forest Service to maintain a uniform program from year to year.

106. Question: Given the reduced volume under contract, is the Agency evaluating the use of less sealed bid auctions in some regions?

Answer: No. Oral auction bidding is the bidding method most likely to lead to unreasonably high bids when supplies are viewed as being limited. A mix of oral and sealed bidding based on ordinary practices and designed to address local circumstances is still considered appropriate.

107. Question: In a similar vein, how much "shelf" volume does the Agency have available to offer nationwide?

Answer: There were 890 million board feet of timber sales prepared and ready to be finalized for sale as October 1, 1987. With the severe fires of 1987 and the heavy impact on the advanced sales preparation program, the amount of advanced sales preparation volume may be as much as 300-400 million board feet lower at the end of FY 1988.

108. Question: Would funding for advanced preparation of sales for additional shelf volume help alleviate the bind caused by the current number of appeals?

Answer: It would help to a certain extent. More sales in the pipeline provide greater flexibility in dealing with delays in individual projects. Of greater importance is the completion of the forest plans and the resolution of conflicts of how specific areas of the National Forests are to be managed.

109. Question: To date, how many appeals have been filed on resales as a result of your response to the recent Ninth Circuit decision?

Answer: There are 252 appeals filed in Region 6 on the resales and one in Region 5.

110. Question: Will you provide a summary of actions in response to your interim rule on resales.

Answer: The rule provides for a 90-day one level review of the appeals. Each appeal is being reviewed on its merits. The work is being done by the Reviewing Officer which is the Regional Forester and his staff.

111. Question: How much timber volume, nationwide, that you counted in last year's program accomplishment report is still tied up in appeals?

Answer: About 300 million board feet of timber sales sold in FY 1987 are not available for harvest as a result of the Ninth Circuit Court ruling that requires more detail in an EIS and more public review.

## RECREATION INITIATIVE

I have already received a couple of letters saying nice things about your new Recreation Strategy. I have received a dozen letters in the last three months saying they hope this program works to change things for the better. The idea of partnerships with private groups and local communities is intriguing.

112. Question: Can your briefly outline the Strategy?

Answer: The intent of the Recreation Strategy is to create additional high quality outdoor recreation opportunities in response to the changing needs of our customers, as expressed in the Forest Plans. Capitalizing on strong public interest, the Forest Service is building partnerships with current and new cooperators to offer needed recreation services and opportunities. Partnerships will leverage the funds and skills of the Forest Service and our cooperators to better serve the public and strengthen multiple use on the National Forests. We plan to build upon our successful experiences with challenge cost-share projects.

Recreation information, interpretation, and environmental education will be improved. Customer satisfaction will receive attention equal to that given to good land stewardship. We intend to promote an outdoor ethic among all users and strengthen our service to presently under-served populations. Internally in the Forest Service, excellence will be developed through improved training, increased information sharing, research, reward, and encouragement of creativity.

## FIRE, ADMINISTRATIVE AND OTHER CONSTRUCTION

In reviewing your construction budget, I noticed that your facilities budget keeps going down, while your FA&O buildings keep getting further beyond their intended life.

113. Question: Would you like to comment on the Forest Service facility situation?

Answer: Yes. Considerable effort is going into improving maintenance management to optimize available funding. Approximately 46% of our facilities were constructed prior to 1946. These facilities are, in most cases, functionally obsolete, and in some cases have been renovated numerous times in an effort to meet current needs.

We are generally able to stay abreast of health and safety problems in our facilities, however, the major problem continues to be the overall obsolescence of existing facilities and high cost lease facilities. At any given opportunity these facilities are replaced after extensive cost and program analysis.

114. Question: Would you provide a prioritized list of the next $20 million or so of projects not included in this request?

Answer: Following are the top priorities for each Region, above the funding level in the 1989 President's Budget:

| | Forest | Project Name | Funding |
|---|---|---|---|
| Region 1 | Regionwide | Planning and Design | $ 125,000 |
| | Lolo | Seeley Lake Ranger Station (RS) Office | 389,000 |
| | Custer | Camp Crook RS Office Remodeling | 90,000 |
| | Clearwater | Powell Ranger Station Duplex | 206,000 |
| | Region Air Base | Taxi, Ramp and Warehouse Paving | 150,000 |
| | Idaho Panhandle | Avery RS Office Addition | 136,000 |
| | | Total, Region 1 | 1,096,000 |
| Region 2 | Regionwide | Planning and Design | 140,000 |
| | White River | Holy Cross RS Office | 431,000 |
| | Arapaho/Roosevelt | Clear Creek RS Office Addition | 398,000 |
| | Uncompahgre | Matterhorn Barracks/Shop | 181,000 |
| | Medicine Bow | Brush Creek Office | 285,000 |
| | Arapaho/Roosevelt | Boulder Office & Work Center | 883,000 |
| | | Total, Region 2 | 2,318,000 |
| Region 3 | Regionwide | Planning and Design | 177,000 |
| | Prescott | Prescott Air Tanker Base Phase 1 | 446,000 |
| | Santa Fe | Coyote Admin (Phase 2) | 578,000 |
| | Apache-Sitgr. | Clifton Office and Warehouse | 135,000 |
| | Tonto | Pleasant Valley RS Office | 475,000 |
| | Prescott | Verde Office & Warehouse | 565,000 |
| | | Total, Region 3 | 2,376,000 |
| Region 4 | Regionwide | Planning and Design | 95,000 |
| | Sawtooth | Shake Creek Water and Electrical | 146,000 |
| | Regionwide | Handicap Access | 8,000 |
| | Manti-LaSal | Warner Sewer System | 26,000 |
| | Caribou | Caribou W.C. Water System | 91,000 |
| | Uinta | Herber Office Building | 317,000 |
| | Boise | Lowman Stage IV | 405,000 |
| | | Total, Region 4 | 1,088,000 |
| Region 5 | Regionwide | Planning and Design | 150,000 |
| | Los Padres | Big Sur (Phase III) | 500,000 |
| | Klamath | Oak Bottom Trailer Park | 600,000 |
| | Shasta-Trinity | Multi-Agency Facilities Design | 150,000 |
| | Shasta Trinity | Multi-Agency Facilities (Phase I) | 2,500,000 |
| | Shasta Trinity | Multi-Agency Facilities (Phase II) | 2,345,000 |
| | | Total, Region 5 | 6,245,000 |
| Region 6 | Regionwide | Planning and Design | 250,000 |
| | Gifford Pinchot | Wind River Seed Freezer | 567,000 |
| | Siuslaw | Alsea Ranger Station Water System | 200,000 |
| | Deschutes | Sisters Ranger Station Sewer | 165,000 |
| | Mt Hood | Zig Zag Sewer Hookup | 80,000 |
| | Umpqua | Tokatee Ranger Station (Phase 2) | 690,000 |
| | | Total, Region 6 | 1,952,000 |
| Region 8 | Regionwide | Planning and Design | 236,000 |
| | Talladaga | Oakmulgee Work Complex | 537,000 |
| | Kisatchie | Catahoula Ranger Station Office | 319,000 |

| | Forest | Project Name | Funding |
|---|---|---|---|
| | Jefferson | Wythe Office Addition | 189,000 |
| | Desoto | Extractory Building | 171,000 |
| | Daniel Boone | Morehead Ranger Station Office | 383,000 |
| | Daniel Boone | Redbird Work Center Building | 371,000 |
| | | Total, Region 8 | 2,206,000 |
| Region 9 | Regionwide | Planning and Design | 80,000 |
| | Nicolet/Hiawatha | | |
| | Ottawa | Job Corps VST Support Projects | 160,000 |
| | White Mountain | PEMI Purchase | 240,000 |
| | Wayne | Ironton Admin. Site (Phase 2) | 242,000 |
| | Superior | La Croix Administrative Site | 552,000 |
| | Shawnee | Elizabethtown Office | 90,000 |
| | | Total, Region 9 | 1,364,000 |
| Region 10 | Regionwide | Planning and Design | 160,000 |
| | Tongass | Craig Ranger Station Office | 780,000 |
| | Chugach | Glacier Ranger Station Barracks | 435,000 |
| | Chugach | Glacier RS Vehicle Storage | 180,000 |
| | | Total, Region 10 | 1,555,000 |
| | | Grand Total | $20,200,000 |

## NOXIOUS FARM WEED CONTROL

Neighbors, especially federal neighbors, that do not take care of their noxious weed problems are not liked. You have 4.9 million acres of infestation that continues to spread. Your Explanatory Notes say "sustained treatments over several years are required to be effective in controlling infestation." They also say you want only two thirds as much money as appropriated in 1988, so you can treat half as many acres.

115. Question: Why are you proposing to reduce the noxious weed program?

Answer: We agree noxious weed control is a significant problem that affects all land owners in an area. Given current technology and the magnitude of the problem, noxious weeds will not be eradicated in the near future. The proposed funding reduction in FY 1989 is part of an overall effort to reduce the present level of federal spending.

116. Question: What would it take to really treat lands on National Forests with noxious weed infestations within say two miles of their boundaries with private lands?

Answer: Our national estimate of noxious weed infestation does not include the level of detail needed to identify infested acreage within two miles of National Forest System land boundaries. We expect a significant amount of the 4.9 million acres infested does occur in this zone. Using existing technology, our control efforts cost an average of $80 per acre.

Total eradication could not occur in one year with existing technology, even if funding were available. Several years of followup treatment are required because of existing seed germination and less than complete eradication of existing plants. If control on lands of all ownerships in an area is not done at the same time, reinfestation occurs.

The solution to noxious weed control is to integrate biological and chemical methods with other management techniques. Chemical control is the most common method currently used for most weed species. The need for new/better control technology, including additional biological controls, is as critical as funding for treatments. Widespread use of biological controls is probably at least 10-15 years away for many noxious weed species.

## QUESTIONS SUBMITTED BY SENATOR MARK O. HATFIELD

### APPEALS

117. Question: As you know, over 200 appeals have been filed on timber sales in four Region 6 national forests under the terms of the timber contract legislation of 1984. Please tell the Committee the status of those appeals and how the Forest Service is attempting to resolve the appeals.

Answer: There were 252 appeals filed in Region 6. The rule provides for a 90-day, one level review of the appeals. We are processing the appeals as quickly as possible. The work is being done by the Reviewing Officer, the Regional Forester, and his staff.

118. Question: How much timber volume is involved in those appeals per national forest?

Answer: Following is the volume of timber involved in the appeals, per national forest:

| FOREST | MILLION BOARD FEET |
|---|---|
| Mount Hood | 70 |
| Siuslaw | 272 |
| Umpqua | 176 |
| Williamette | 371 |
| Siskiyou | 124 |
| Okanogan | 10 |
| Mt. Baker/Snoqualmie | 6 |
| Olympic | 8 |
| Total | 1,037 |

119. Question: What percentage of the total 1988 sales program for each national forest is under appeal?

Answer: The percentage of the 1988 sales program under appeal is as follows:

| FOREST | PERCENTAGE OF PROGRAM UNDER APPEAL |
|---|---|
| Mount Hood | 20.0 |
| Siuslaw | 18.0 |
| Umpqua | 4.0 |
| Williamette | 14.0 |
| Siskiyou | 12.0 |
| Okanogan | 12.0 |
| Mt. Baker/Snoqualmie | 2.3 |
| Olympic | 3.0 |

120. Question: What is your best estimate of the economic impact that not resolving the appeals would have on direct employment, indirect employment, loss of timber receipt revenue, and direct payments to the United States treasury?

Answer: The Region estimates that there would be a $20,000,000 loss in both direct and indirect employment. Loss of timber receipt revenues is estimated at $120,000,000. Direct receipts to the United States Treasury that would be loss is approximately $90,000,000.

121. Question: It is my understanding that you are in thee process of revising the appeal regulations pertaining to the rewriting of the reoffered sales. If that is true, what is your estimated time for promulgating the new rules?

Answer: The appeal regulations have been revised. The new rules provides for a 90-day, one level review of the appeals. We believe this rule is adequate to handle the appeals situation.

122. Question: Mr. Robertson, given all of your experience in the Forest Service, do you believe the current appeals process is fair? Does it favor one group more than another? Should it be changed administratively or legislatively?

Answer: Historically, the appeals process has proven to be fair and equitable to all parties and should be continued. We are, however, looking at making several changes which we believe might improve the current procedures.

123. Question: Because of the uncertainty caused by the current appeals, I am told that there is beginning to be speculative bidding on timber sales. What prices have been offered for timber in Region 6 recently?

Answer: To date, there has not been speculative bidding. Bid prices have stayed fairly consistent since the first quarter of 1987. Average bid prices per thousand board feet are as follows:

| | |
|---|---|
| First Quarter 1987 | $138 |
| Second Quarter 1987 | $137 |
| Third Quarter 1987 | $151 |
| Fourth Quarter 1987 | $178 |
| January 1988 | $173 |
| February 1988 | $180 |

124. Question: How does this compare with the prices of timber sales in 1980 and 1981, just prior to the last price collapse which led to the timber relief legislation?

Answer: Average timber sale bid prices in FY 1980 and FY 1981 were $251 and $225 respectively. Since economic conditions are radically different, however, it is doubtful whether any meaningful conclusions can be drawn from the difference in prices.

125. Question: What tools are available to the Forest Service to provide stability in the timber supply?

Answer: The principle tool available to the Forest Service to provide stability in the timber supply is to maintain a consistent, reliable, uniform program of sales, over the years, that are properly designed to provide for cost effective operations by the industry. A reliable, predictable program allows industry to buy sales according to their anticipated needs and to consider volume under contract fluctuations, as market conditions vary.

Since it takes up to five years to prepare and sell a timber sale, timber programs can not be rapidly adjusted to reflect changing market conditions. Thus, a consistant, reliable, fairly uniform program is the most desirable means of providing stability in the timber supply.

## FOREST PLANS IN REGION 6

126. Question: It is my understanding that the State of Oregon is reviewing the proposed forest plans in the State. How will the Forest Service utilize the expert information the State provides?

Answer: Good working relationships on the review of Forest Plans have been established with the State of Oregon at both the Regional and Forest level. Before any final decisions are made, close communication and coordination on the aggregated effects of implementing the plans will occur with both the States of Oregon and Washington. Since the State information represents a broad cross section of expertise and public concerns, this will be very valuable in helping the Regional Forester make final decisions on Forest Plans.

Mr. Robertson, As you know, public understanding and acceptance of your forest plans is crucial in any effort to implement them in final form. A critical factor in establishing necessary public support is to develop draft plans that are technically well founded.

Last year, in response to an appeal of minimum management requirements (MMRS) by the Northwest Forest Resources Council, the Forest Service formed a task force to receive, review, and respond to technical concerns and comments raised by the public.

127. Question: A reporting outlining 103 technical concerns was drafted, but all of the suggestions and comments have been rejected. Can you provide the Subcommittee with an explanation for this?

Answer: The technical concerns were public responses to the draft forest plan/environmental impact statements for the Siuslaw and Olympic National Forests. The suggestions and comments were not rejected. They were valuable, as we were able to re-examine a number of assumptions that were used in the planning process. Each concern raised was reviewed, consolidated where appropriate, and a course of action was determined. Some suggestions were adopted. Others needed further testing and analysis before a decision could be made whether to adopt them or not. We intend to continue to work with the suggestions and comments, and update plans at an appropriate time if the information proves beneficial.

128. Question: How can the public be certain that legitimate comments will be incorporated and improvements will be made in the plans as they evolve from draft to final?

Answer: The National Environmental Policy Act (NEPA) process provides a good framework to identify substantive comments, analyze them, and display in final documents how the comments were incorporated into the decision process. Using these guidelines, we will also be identifying suggestions that need further analysis, evaluation, or testing. In fact, many of the recommendations made through the public comment process can be made immediately.

129. Question: On the same topic, the Department of Agriculture ordered the preparation of a paper outlining your policy about the development of minimum management requirements. Please provide us with a status report on that paper's progress.

Answer: A paper containing information regarding minimum management requirements, to be included in forest planning documents in the Pacific Northwest Region, was sent to the field on March 11, 1988. The Region will be working with each Forest to assure the intent of the paper will be addressed.

Late in March, a study prepared by C.H.2.M/Hill of Portland indicated that, under either of two scenarios, the draft forest plans for Region 6 contained questionable assumptions which may have led to the development of draft preferred alternatives which, in the aggregate, could seriously injure Oregon and Washington's economic recoveries State-wide. The study also indicated that there would be serious economic disruptions in specific timber dependent communities as well.

130. Question: Has the Forest Service reviewed this study? What is your response to it?

Answer: We have not completed a detailed review of the C.H.2.M/HILL analysis. However, we have serious concerns about assumptions used in their analysis. Specifically, those assumptions are that potential yield figures from the existing timber management plans are appropriate for comparison with the Allowable Sale Quantity (ASQ) figures from forest plans, and that Congress will not fund historic levels of timber harvest represented by the forest plan ASQ figures.

SILVER FIRE/SISKIYOU NATIONAL FOREST

131. Question: As you know, several of the reoffered sale appeals were made on the Siskiyou National Forest. What percent of the 1988 sales program for the Siskiyou is made up of sales under appeal?

Answer: Approximately 12 percent of the FY 1988 Siskiyou timbers sales program is currently under appeal.

132. Question: It is my understanding that the remainder of the 1988 sales program is to be salvage sales from the Silver complex fire. If the draft environmental impact statement for the Silver fire is challenged in court and the appeals of the Siskiyou are not resolved, what plans does the Forest Service have to provide timber to lumber companies dependent upon the Siskiyou National Forest?

Answer: Efforts on the Siskiyou National Forest have been directed toward preparing the salvage and buy back timber, consequently there are virtually no new sales prepared. The Region would have to substitute sales on other forests to make up the volume difference.

133. Question: What economic impact will this have on direct employment, indirect employment, loss of timber receipt revenue, and direct payments to the Unitdd States treasury?

Answer: If the Region is unable to make up the necessary volume to replace the salvage sales volume currently proposed in Silver fire salvage sales program, there could be approximately 1,200 jobs affected and an $18,000,000 lost in timber sales receipts.

134. Question: What "green sales" are available for the 1988 and 1989 programs in the Siskiyou?

Answer: In FY 1988 there are 10 million board feet in green sales available and in FY 1989 an estimate 104 million board feet would be available.

135. Question: If preferred alternative I is adopted as drafted, what will the effect be on the Siskiyou National Forest's ASQ through the remainder of the decade?

Answer: We do not anticipate any changes to the ASQ on the Siskiyou National Forest.

136. Question: If the ASQ declines, what is your projected effect on jobs, federal timber revenues, and public timber supply in Southwest Oregon and Northwest California.

Answer: The recent fires on the Mendocino and Klamath National Forests reduced the forested lands by 25 to 50%. The Klamath National Forest intends to rewrite its draft forest plan and environmental impact statement. The Mendocino has undertaken an analysis to determine the effect on the proposed forest plan. All other forests will be able to meet their ASQ as outlined in the draft forest plans. The projected effect on federal timber revenues, jobs and timber supply will be part of the analysis.

## MAPLETON RANGER DISTRICT TIMBER SUPPLY

137. Question: Chief Robertson, in 1985 congress authorized the sale of buy back volume on one Mapleton Ranger District to replace new green sales that were enjoined from being sold or awarded due to the lack of an EIS. How has the effort worked in assuring a smooth supply of timber from that district?

Answer: The sufficiency legislation has provided for a program of 90 million board feet (MMBF) each year through FY 1988. It also has provided funding for the Mapleton Ranger District to staff the planning and preparation of outyear timber sale programs, pending the implementation of the forest plan and the lifting of the court injunction.

FY 1988 is essentially the end of the availability of buy-back volume. There will only be 2 MMBF to 5 MMBF remaining to offer in FY 1989. This minor reoffer volume, plus a minor amount of salvage and thinnings permissible under the sufficiency language, will be the total extent of the FY 1989 program for Mapleton, unless the injunction is lifted.

138. Question: In light of the fact that these buy back sales are either all sold or are being delayed because of appeals, can you provide us with a report of the current situation on the Mapleton District?

Answer: The current situation at Mapleton is that we are offering and awarding the buy back sales, under the interpretation that the legislation protects these sales from the appeal process. The Mapleton sales appeals have been dismissed under the terms of the interim CFR211.17 regulations. Currently, we do not foresee the final CFR211.17 changing our position on these appeals.

The FY 1988 target for the Siuslaw National Forest is premised on a 115 MMBF program at Mapleton. The sufficiency legislation caps the program at 90 MMBF. The Siuslaw will be able to make up only about 11 MMBF of this discrepancy on other Ranger Districts. The Mapleton Ranger District is preparing a sale program for FY 1989 so that they are in a position to offer timber as soon as the forest plan is implemented and the court injunction is lifted. However, FY 1989, targets assigned for Mapleton will be ineffective without completion of the forest plan and the lifting of the injunction. The forest plan is scheduled for completion in February, 1989.

139. Question: What is likely to occur in FY 1989?

Answer: We expect that the forest plan will be completed and implemented and the Mapleton Ranger District will proceed with a regular timber sale program in line with the forest plan and the annual budget appropriation for the Region. Any delays brought about by appeals of the forest plan and possible litigation will have to be dealt with as they occur.

I recently testified before the Senate Small Business Committee regarding the Forest Service small business set-aside program, and also heard the testimony presented by the Associate Chief and the Associate Administrator of the Small Business Administration. It was my conclusion that the Forest Service has devoted a great deal of time in developing the proposed changes, and a great deal of effort to assure a fair program for all interests.

## SPOTTED OWL

140. Question: Have you compiled an inventory of spotted owls on National Forest System lands? If not, what evidence is there that the actual population of the spotted owl is declining under present management techniques.

Answer: The extent of completed spotted owl inventories is variable. Inventory includes monitoring, locating nest sites, and determining home ranges. Inventories are especially lacking in wilderness areas, second growth, and areas not obviously spotted owl habitat. We intend to check all areas that may support owls. In the areas we have observed, owls are declining at the same rate that the habitat is being logged. This is approximately 1% per year.

141. Question: What harm would be caused if you avoided harvesting in your "SOHA's" (Spotted Owl Habitat Areas) for the next five years, without reducing the allowable cut, while you complete the extensive research projects you have undertaken to determine the needs of the owl?

Answer: The main harm would be to other wildlife and fish species, and cummulative effects to watersheds as logging would continue in areas already heavily logged due to Rare II and other efforts that have protected areas without removing them from the timber base.

142. Question: Your regulations (36 C.F.R. s 219.19) requires you to manage wildlife species to maintain an estimated viable population. What number of spotted owls have you established as a viable population?

Answer: A viable population will be maintained through providing the proper amounts and distribution of habitat necessary to ensure continued existence. This will be accomplished by implementing the regional guidelines through forest plans. We currently have not established a viable population number. This will be worked out in the forest plans. The regional guide will require forest planners to design a distribution network that will maintain adequate numbers for a viable population.

143. Question: Your regulations (36 C.F.R. s 219.19) only requires that a species be "well distributed" in the region. Have you gone beyond the regulation to protect owl habitat in the entire present range of the owl from north to south and east to west?

Answer: The strategy is to provide habitats, through efficient use of different classes of land, to minimize impacts on timber harvest. The goal is to provide the amounts and distribution of suitable spotted owl habitat necessary to ensure the continued existence of a well-distributed population throughout the planning area.

The approach for accomplishing this goal is to provide habitat protection first on lands already withdrawn from timber production, for example, wilderness areas and lands technically unsuited for timber production; then on lands that will be assigned in the Forest plans to uses other than timber production, for example, Wild and Scenic Rivers; and next to lands assigned to less than full production, such as those near main highways; and finally, the designation of spotted owl habitat management areas on lands tentatively suitable for timber production, but only enough to ensure linkages with the owls in the other classes of lands. This complies but does not go beyond the regulations requiring species to be well distributed.

144. Question: Does your plan still assume that the owl requires large blocks of old growth for survival? If not, how does you plan utilize existing owl habitat in second growth and mixed growth stands?

Answer: It is estimated that 95% of the owls inventoried live in old growth and and mature timber. The strategy gives priority to owl habitats that are occupied by pairs of owls. When owls are found in mix stands and second growth they will be a part of the strategy.

145. Question: Does your plan depend on a rigid 6-mile interval between "SOHA's? If so, what scientific evidence exists to require this rigid interval as opposed to a more flexible plan?

Answer: Our plan does not have a rigid 6 mile interval between SOHAs. Our objective is to have a well distributed set of networks within the Forest Service planning areas. Individual areas are usually 6 miles apart with clusters of 3 areas being 12 miles apart. The distances are based on research of dispersing owls. The research shows that around 50% of displaced owls travel at least 25 miles, but over 80% travel at least 12 miles.

146. Question: Have you discarded any of the scientific basis for the 1986 draft supplemental EIS, and are you basing the current plan on previously undisclosed empirical evidence? If so, will you issue a new draft supplemental EIS so that the public can comment on your new data and new analysis before a final decision is made?

Answer: We have not discarded any scientific information in preparation of the EIS regarding spotted owls, nor do we anticipate a need to issue a new draft supplement EIS. The final EIS is scheduled to be completed in the next several weeks.

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## QUESTIONS SUBMITTED BY SENATOR TED STEVENS

### TONGASS TIMBER SUPPLY FUND

In the current fiscal year, FY 1988, there was a significant cut in funding for the Tongass National Forest's timber program. I am concerned about the impact these cuts are having on Forest Service programs for the Tongass.

147. Question: How has it affected your ability to administer current timber sales and prepare future sales?

Answer: Harvest activity on the Tongass National Forest through the second quarter of FY 1988 was 159.8 MMBF, compared to 127.8 MMBF through the same period of FY 1987.

This current level of timber harvest activities will require shifting funds within the timber program to timber harvest administration. The results will be a decrease in those funds available for the sales preparation, lay-out and release work for future years timber offer programs.

The impacts of this reduction in the short term sales area will not occur until after FY 1988. Short-term timber sales must be planned and proceed through an orderly process to ensure compliance with the National Environmental Policy Act (NEPA) and other laws and regulations, as well as obtain necessary permits required of timber sales in Alaska involving access to salt water. The overall process requires 3 to 8 years, depending on the size and complexity of the sale.

Impacts on the long-term sales will be apparent sooner, as the sales layout and release is geared to expected harvest levels, whereby the volume is physically laid out and released as necessary to meet the timber purchasers needs.

This reduction may also delay the preparation of the 5-year operating plans which reflect the full volume authorized by the long-term contracts. This volume is made available through preparation of an Environmental Impact Statement.

148. Question: Are you able to meet this year's demand for timber?

Answer: Yes, we will be able to meet this year's demand for timber. There is currently over 1 billion board feet of timber under contract on the Tongass National Forest which has not been harvested. This volume includes approximately 550 million board feet of short-term sales.

149. Question: What are your estimates of the demand for short term timber sales -- those available to smaller operators -- over the next several years, and will current funding levels allow you to meet that demand?

Answer: Industry representatives have informed us that they expect to achieve a rate of harvest of 600 MMBF during calendar year 1988. Should this rate of harvest occur and be sustained over a three year period, it would be a major impact on the total volume under contract.

Assuming that the harvest on the long-term contracts would be at a rate per year that was experienced during the last ten year period (206 MMBF for Ketchikan Pulp Company and 179 MMBF for the Alaska Pulp Corporation), this would leave a balance of 215 MMBF for short-term sales. Included in this 215 MMBF would be the 80 MMBF that must be made available for small business operators.

At a harvest level of 215 MMBF per year and the current volume under contract, of approximately 550 MMBF for the short-term sales, volume would be depleted in about two and one-half years. At the present funding levels, the Tongass would only be able to replace 80 MMBF in new sales in FY 1989, thus leaving a short-fall of about 135 MMBF, if the projected harvest level is achieved and sustained for the period of 1988-1990.

Therefore, funding is not sufficient to maintain a timber supply level avialable to the timber operators such a harvest level is sustained over the next 3 years. Funding for a 215 MMBF short-term sales program would be approximately $7.6 million per year. This includes all phases of preparation and administration.

In 1979, the Tongass became the first national forest to have a land management plan developed under the National Forest Management Act of 1976. The Forest Service has now begun the process of revising the Tongass land management plan. The revised plan should govern management of the Tongass into the next century.

150. Question: How has the revision process been affected by fiscal year 1988 funding levels?

Answer: The FY 1988 funding level reduced the planned funding for the forest plan revision by $250,000. This reduction was tied to completion of the data base for the revised Forest Plan. While the Forest Service will make every effort to release the draft of the revised Plan as scheduled in December, 1989, the reduction may delay issuing the draft for up to 6 months.

151. Question: How will this process be affected by the proposed budget for fiscal year 1989?

Answer: The proposed budget for FY 1989 fully funds the revision effort. The time loss in FY 1988, however, cannot be made up in FY 1989 since the preparation of the data base is necessary prior to moving forward on the analysis of the management situation and the development of alternatives.

152. Question: What has been the impact of the FY 1988 funding cuts on Forest Service staff levels in the Tongass?

Answer: Our current estimate is that staffing related to the timber program will be reduced by 45-50 FTE's. Outplacement of personnel has been slower than was originally anticipated, which has limited our ability to reduce FTE's.

Net staffing reductions for the entire Forest are estimated to be between 25-30 FTE's. There have been increases in FTE's in some programs on the Tongass due to increased funding. Examples are the recreation, and wildlife and fisheries programs. We have been able to move some of the personnel originally programmed to work in timber to these other programs to reduce the costs of outplacement and eliminate the need for reduction-in-force actions. We have not been able to make one-for-one movements between programs, due to the specialized skills needed to meet some program objectives.

153. Question: Will there be a change in Forest Service staff levels under the proposed FY 1989 budget?

Answer: Enactment of the proposed budget would increase staffing by a total of 33 FTE's.

## ANADROMOUS FISH

Between 1980 and 1987, cooperative efforts between the Forest Service and the State of Alaska produced 74 fisheries habitat improvement projects. These projects have increased salmon production an estimated 7 million pounds per year.

Habitat improvement is critical to Southeast Alaska's fishery, since the Pacific Salmon Treaty of 1985 does not allow an increase in the harvest allotted to U.S. fishermen without a corresponding increase in salmon stocks produced from U.S. territory.

154. Question: The proposed budget includes a cut in anadromous fish habitat improvement of $2,341,000 from the base rate for 1989. How much of that cut will occur in Alaska?

Answer: The final allocation for FY 1988 is $2.8 million for anadromous fish habitat improvement in Alaska and $1.3 million is proposed for FY 1989. This is a reduction of $1.5 million. One half of the funds in FY 1989 are for the challenge cost-share program. This will allow us to leverage our funding with that from industry to complete additional anadromous fish habitat improvement projects.

155. Question: The Explanatory Notes indicate a loss of 29 FTE's in this program. Where will these personnel cuts be made?

Answer: The cuts will be made in fisheries biologists and support personnel. An estimated ten fisheries biologists will be lost.

156. Question: Why is there such a precipitous drop in habitat improvement funding and numbers of projects under the proposed budget?

Answer: The Bipartisan Budget agreement reached last year between the Administration and Congress underscored the continuing need for deliberate reductions in government spending. The proposed FY 1989 Budget for the Forest Service accomplished this objective through a slight decrease in overall funding, while also accomplishing reductions in specific program areas, including wildife, based on difficult, but necessary choices.

Although the President's Budget is about $4.9 million below the 1989 Base, it does provide for an increase in the wildlife challenge cost share program of $3 million over the 1988 level. The Forest Service will be able to leverage appropriated funding with that from industry and other groups to complete additional habitat improvement work.

The number of projects to be completed in a given year can be misleading and is not a good indication of anticipated program accomplishments. The mix between acres and structures and the complexity of planned habitat improvement projects varies widely from year to year and will cause distortions in multi-year funding comparisons. Habitat improvement projects (acres) usually covers a great deal of ground and are relatively low costs. On the other hand, structural improvement projects, such as fish ladders or watering ponds, are for very small areas, and are usually very costly.

157. Question: What steps is the Forest Service planning to take during the next five years to assist in enhancing salmon production from the National Forests in the Northwest?

Answer: Through the development of "Rise to the Future" and implementation of forest plans, an additional 72 million pounds of anadromous fish could be produced annually.

## QUESTIONS SUBMITTED BY SENATOR DENNIS DeCONCINI

### FORESTRY SCIENCES LAB

As you know, the Forest Service has had repeated meetings with Arizona State University (ASU) officials about the need to relocate the existing Forest Service lab, parking lot and greenhouse on the campus to make room for the planned engineering center. The latest meeting on March 19, 1988 resulted in the Forest Service's commitment to relinquish the parking lot space and greenhouse space by a September-October timeframe.

158. Question: Can this be accomplished without placing any undue burden on the Forest Service?

Answer: Our understanding with University officials is that the relocation can be accomplished, provided that the University makes available to the scientists at Tempe adequate University greenhouse facilities until the new facilities are completed at Flagstaff. Our agreement was also that adequate access to the existing lab facility would be provided, as well as parking for the Government vehicles at some suitable location as near as possible to the existing lab.

I recognize that the termination of both those leases must occur before the University can take possession of the parking and greenhouse areas. I understand that this would require legislation.

159. Question: Does the Forest Service support legislation which will terminate the existing leases on these two facilities?

Answer: The Forest Service is interested in cooperating with the University to the fullest extent possible. It is agreed that legislation may be needed to terminate the portion of the lease that applies to the parking lot and greenhouse areas and to transfer title of the greenhouse/headhouse to the University.

Once these two leases are terminated, the remaining obstacle to construction of the Engineering Center at ASU is the existence of the Forestry Sciences Laboratory. I understand it will take about 2 to 3 years for the Forest Service to relocate this facility to Northern Arizona University (NAU).

160. Question: What are the costs to cover the relocation of the Forestry Sciences Laboratory to Northern Arizona University?

Answer: We estimate that the cost to relocate and duplicate the facilities in Tempe to Flagstaff would be approximately $5.6 million.

161. Question: Is there any way for the Forest Service to move this lab in the next 11-14 months to temporary space at Northern Arizona University until a permanent facility is constructed? Please explain.

Answer: Moving the lab to temporary space would be disruptive to Forest Service research programs.

To date, Northern Arizona University has only identified office space and cannot provide the necessary laboratory space that would be needed to conduct our research activities. In addition, a move such as this, even if sufficient laboratory space was available, would be so disruptive that research output would essentially cease until the move to a permanent location was complete. It is also estimated that the short notice would cause a significant (50 percent) loss of personnel, without sufficient time to plan for replacements.

I understand that as part of the Research Lab relocation, the Forest Service would like to colocate the Coconino Supervisor's office, as well as the Tempe, Flagstaff and Forest Valley Experimental Forest Facilities in one location, adjacent to Northern Arizona University.

162. Question: What is the total cost for this project?

Answer: The cost to colocate would be approximately $11.5 million.

Northern Arizona University (NAU) has also discussed the expansion of this concept of consolidation to include a rural sciences/southwestern forestry facility which would be an extension of the University. It is my impression from the discussions I have had with NAU that operating expenses for the facility and cost sharing for its construction would be part of the overall proposal.

163. Question: Has this concept been discussed with the Forest Service, and if so, do you see a benefit to the Forest Service from such a facility?

Answer: Yes, the concept has been discussed in a very preliminary way with Station officials. Based upon our understanding of the proposal, it may be beneficial to the Forest Service. However, we would need further discussions with the University, in order to fully understand the proposal.

In order to keep with the 2 to 3 year schedule for the relocation of the Forestry Sciences Laboratory, construction funding will be necessary. I see that no funds have been requested in your FY 1989 budget submission to initiate architectural engineering and design.

164. Question: First, how much is necessary in FY 1989 to start these A&E activities? And second, what is your capability in FY 1989 in terms of construction activities on the facility?

Answer: As recently as February 1988, it was the understanding of the Forest Service that a 3-5 year time schedule was involved in moving the facilities. Therefore, no funds were included in the 1989 President's Budget. The need to complete the project has been accelerated by Arizona State University officials.

We estimate the architectural and engineering would cost approximately $842,000, which is about 8 percent of the estimated construction cost. These costs are based on designing a building to accommodate the Tempe and Flagstaff Research needs, as well as those of the Coconino Supervisor's office.

The earliest that construction activity could start would be in late FY 1990, if contracts were awarded in the fall of 1989.

165. Question: Would the addition of an NAU rural sciences facility add to the A&E costs? If so, by how much?

Answer: The Northern Arizona Univeristy, rural sciences facility would not add to the A&E costs of the Forest Service.

RECREATION RESEARCH

166. Question: Is Forest Service Research involved in the National Recreation Strategy?

Answer: Yes, we are examining our research program and making adjustments to more actively support the National Recreation Strategy emphases.

These adjustments will be made over the year by encouraging recreation projects that focus work unit descriptions and ongoing research efforts on issues relevant to the Strategy and to broaden contacts with user groups.

167. Question: What kind of research changes do you see forthcoming?

Answer: We will be placing increased emphasis on problems in high-use recreation areas--mainly in areas near large metropolitan centers. We want to develop improved methods for resolving user/resource conflicts and we are equally concerned about ways to increase customer satisfaction in all Forest Service recreation areas.

168. Question: Does the FY 1989 Forest Service Research budget for recreation reflect an increase in line with the National Recreation Strategy?

Answer: Our recreation research budget is down about $100,000 from FY 1988. This level of funding, however, provides for continuation of high-priority research related to the National Recreation Strategy, including improving customer service in high-use recreation areas, assessing demand for recreation experiences, and wilderness management.

169. Question: If we were to increase the FY 1989 funding for Resource Analysis Research on recreation by $500,000 to $1,000,000, how would you use these additional funds?

Answer: The FY 1989 President's Budget provides for a balanced program in all research areas. With a $500,000 to $1,000,000 increase, we would address new problems in the areas of high-use recreation sites, customer values, prediction of user behavior, and some additional work on wilderness research problems.

SNOW BOWL ROAD

As you recall, $1.7 million was included in the FY 1988 budget to start the reconstruction of the Snow Bowl Road on the Coconino National Forest.

170. Question: What activities do you plan to undertake on the road in FY 1988?

Answer: The road will be reconstructed through all earthwork, drainage, guardrails, signs, and half of the base rock depth. The contract is currently being advertised and we expect work for this phase of the reconstruction to begin in early June and be completed by mid-October, barring unforeseen problems with the award or any major problems during contract work.

171. Question: I was delighted to see the request in the Forest Service FY 1989 budget for the remaining $2.1 million to complete the construction project. When will the project be completed and when will the traveling public be able to use the newly reconstructed road?

Answer: We expect to start Phase II of the project in June, 1989. If this occurs, we would expect the contract to be completed in October, 1989.

During reconstruction work, we plan to require the contractor to provide a pilot car and to reconstruct one lane at a time. In this manner, we will not overly restrict traffic to and from the Snow Bowl, other than the time it will take the pilot car to make a round-trip, roughly 10 to 15 minutes.

## JACOB LAKE VISITOR CENTER

The existing visitor and information center at Jacob Lake for the Kaibab forest seems to be inadequate to properly serve the public traveling to and from the forest and to and from the North Rim of the Grand Canyon. I understand Highway 67 is being rebuilt so that seasonal use of the Forest and the National Park can be extended through November 30 of each year. When this road project is completed, it will place even greater demands on the visitor center.

172. Question: Does the Forest Service have any plans to construct an information center at Jacob Lake?

Answer: The forest plan for the Kaibab National Forest identifies a Jacob Lake Information Center as a potential future construction project. A specific date for construction has not been established, although it is anticipated that construction would not be necessary for several years.

173. Question: How much would it cost to do the job properly?

Answer: The costs are not known at this time.

## SHEEP BRIDGE

Another $460,000 was included in the FY 1988 Trail Construction budget for the Forest Service to complete the work on the replacement of the historic Sheep Bridge over the Verde River on the Tonto National Forest.

174. Question: What progress has the Forest Service made on this project thus far?

Answer: The old bridge has been removed. The new bridge has been designed, prefabricated, and delivered to the Administrative Site at Carefree, Arizona.

175. Question: When do you expect to install the replacement bridge and have it open for public use?

Answer: The contract for installation of the bridge is presently being prepared and is expected to be advertised in late May. The completed bridge should be open for the public in October, 1988.

176. Question: Have the funds provided to date been sufficient to undertake and complete this replacement project? If not, please explain.

Answer: It is presently anticipated that the funds allocated are sufficient to complete the project.

## RECREATION

As you know, the Congress provided new authorization to the Forest Service to initiate a challenge grant program for the development of recreation facilities on our National Forests. I want to express my compliments to the Forest Service for its initiative in this area. Recreation demands will only continue to rise and I am delighted to see that we have a program that will respond to some of the long overdue needs.

177. Question: Can you update me on the progress of this recreation challenge grant program? What types of requests for funding did you receive and what projects do you plan to fund.

Answer: In FY 1988, $500,000 was earmarked by Congress for the challenge cost share program in recreation. Over 100 private organizations and government agencies, and numerous individuals have pledged contributions of cash, labor, and materials for the completion of 30 projects on 27 National Forests from Alaska to Florida. Contributors included conservation groups, chambers of commerce, schools, organizations of disabled individuals, veterans groups, interpretive associations, and private businesses.

Projects included the reconstruction of boat ramps, picnic areas, trails, foot bridges, historic structures, and the modification of facilities on Forests to provide barrier-free access for disabled persons, and the development of interpretive displays.

178. Question: I see that $3 million has been requested to continue this successful program in FY 1989. Is this amount sufficient to cover the Federal costs for cost-share projects that have already been identified and started in FY 1988?

Answer: The 30 projects selected for challenge cost share funding in FY 1988 will be completed with those funds. The $3 million requested for FY 1989 is intended for new projects, rather than as a continuation of the FY 1988 projects.

179. Question: Is it sufficient to fund new projects where local sponsors have indicated a willingness to cost share in FY 1989? If not please explain what projects will not be funded?

Answer: FY 1989 challenge cost share proposals have not been solicited and thus the selection of projects to be funded for FY 1989 has not begun.

A $2.9 million reduction has been proposed for the recreation management program in FY 1989. The justification explains that "accomplishments will be increased by the use of $1.5 million in challenge cost share projects." However, the justification also indicates that the proposed funding level of $96.7 million will only allow the Forest Service to provide about 57 percent of capacity.

180. Question: With our National Forests being the highest recreation use lands in the country, if funding were not a problem, what would be a reasonable level of services to respond to the growing public demand?

Answer: The Forest Service mission is to manage the public lands under it's jurisdiction within the concepts of multiple use. The demands for recreation have to be balanced with the other resource demands on the forests, including timber production, range utilization, and wildlife and fish habitat management. The 1989 President's Budget request represents a reasonable level, given the need to balance these uses.

181. Question: How much additional funding in FY 1989 should be available to move the Forest Service closer to the needs and demands of the recreating public?

Answer: The FY 1989 President's Budget is a balanced proposal for implementation of all of the agency's programs. Through implementation of the National Recreation Strategy, the agency will be more prepared to meet the needs and demand of the recreating public. This strategy is not dependent upon additional funds for its success.

182. Question: Your justification contains interspersed funds for "recreation" programs. Can you provide me a detailed listing of all of the programs which constitute the National Recreation Strategy? Can you provide a summary of the budget request for each compared to FY 1988?

Answer: The National Recreation Strategy encompasses all the recreation programs, from primitive wilderness management to downhill ski resorts. It is not a budget dependent program; rather it is a new way of doing business and viewing our recreation customers, partners and employees.

The intent of the Recreation Strategy is to create additional high quality outdoor recreation opportunities in response to the changing needs of our customers as expressed in the Forest Plans. Improving customer satisfaction is one of the primary goals of the Recreation Strategy. Capitalizing on strong public interest, one part of the Recreation Strategy program is the building of partnerships with current and new cooperators, through challenge cost share projects, to offer needed recreation services and opportunities. Partnerships will leverage the funds and skills of the Forest Service to better serve the public and strengthen multiple use on the National Forests.

In order to increase customer satisfaction, the Forest Service needs to learn more about their customers and their preferences. Thus research will be undertaken to identify user preferences. This research will include focusing on under-served populations and strenghtening our service to meet their needs and expectations.

Internally in the Forest Service, excellence will be developed through improved training, increased information sharing, research, reward, and encouragement of creativity.

The FY 1989 budget request for recreation programs compared to FY 1988 is as follows:

| | FY 1988 Appropriation Enacted to Date | FY 1989 President's Budget | |
|---|---|---|---|
| Forest Trail Maintenance | $ 20,026,000 | $ 15,636,000 | |
| Recreation Use | 123,742,000 | 122,162,000 | |
| Recreation Use Area Construction | 17,990,000 | 19,157,000 | 1/ |
| Forest Trail Construction | 14,671,000 | 12,643,000 | 1/ |
| | $176,429,000 | $169,598,000 | |

1/ FY 1989 funding for recreation and trail construction is proposed to be provided from a new account, Operation and Maintenance of Recreation Facilities. This new appropriation account will provide for the return of all recreation user fees and special use fees to the Agency.

Private citizen groups, along with the private companies such as Kaibab Forest Products Company are in the process of constructing a portion of a hiking/equestrian trail which will reach from the Mexican border to the Arizona-Utah border. The "Arizona trail" will link up with a similar trail in Utah, and eventually be part of the "Great Western Trail" which would reach to the Canadian border.

183. Question: I assume that much of the trail will transverse National Forest System lands. Is that correct? Could you provide a map or brief description of the trail as it involves National Forest lands? Are Forest Service personnel participating in the planning meetings?

Answer: About 70 percent of the Arizona Trail will be located on National Forest System lands. The 700 mile Arizona Trail begins in the Coronado Memorial at the Mexican border and runs north to the Utah border, north of Jacob Lake. It crosses four National Forests, the Grand Canyon National Park, and Bureau of Land Management and State lands. A map of the Arizona Trail will be provided.

Forest Service personnel are involved in the planning of the trail and an Arizona Trail Coordinator position has been established. The Coordinator is working with appropriate government agencies and private sector participants in the planning of the project.

184. Question: In what ways can the Forest Service fully participate or support this Arizona trail effort and the whole Great Western Trail effort?

Answer: The Forest Service is currently supporting the effort through the establishment of the Arizona Trail Coordinator position and continued cooperation and coordination with Arizona State Parks, the primary sponsors of the effort. In the future, the Forest Service can support the effort by participating in challenge cost share projects such as trailhead developments, trail and interpretive signs, brochures and trail construction and maintenance.

185. Question: Would additional funds be needed to allow the Forest Service to fully participate?

Answer: In FY 1989, $40,000 is programmed to fund the Arizona Trail Coordinator position and to provide support to the volunteer effort associated with this project. This funding, along with potential cost sharing funds, will permit substantial Forest Service participation.

186. Question: Will any construction be necessary for the trail? Will comfort stations or other facilities need to be built? What efforts are being considered to accommodate handicapped persons?

Answer: Those segments of the trail that follow roads may need to be relocated and side trails feeding in to the main trail may need to be built. Certain portions of the trail will be constructed to accommodate disabled persons. If comfort stations and other facilities are determined to be necessary, the needs will be reviewed along with other National and local priorities.

## MT. GRAHAM

I was pleased to see the Forest Service publish its draft biological assessment on the Mt. Graham red squirrel. I understand the Fish and Wildlife Service is presently considering its biological assessment and plans to have a document for public comment sometime toward late April or early May.

187. Question: Can your provide me with a detailed listing of what steps must be taken prior to completion of the environmental impact statement on Mt. Graham?

Answer: The Forest Service submitted a biological assessment to the Fish and Wildlife Service (FWS) on the Mt. Graham red squirrel in February 1988. We anticipate the FWS review and biological opinion to be completed by mid-May. Once their comments are received, we will review the opinion and make a final alternative selection. The environmental impact statement (EIS) will be revised and completed along with the agency response to public comments and record of decision. We estimate the EIS document will be printed and distributed by August 1988.

## TIMBER

The Congress in FY 1988 included language in the appropriations Conference Report which stated: "The road construction allowance includes sufficient funds for the purchaser credit and purchaser elect construction, and support for a 400 MMBF program in Region 3."

188. Question: What is the current status of the Region program?

Answer: The FY 1988 allocation to Region 3 included sufficient funds to support a 400 MMBF timber program. At this time, we anticipate no problems meeting this timber sale goal.

189. Question: What is the current FY 1989 budget request for the purchaser credit program in Region 3?

Answer: The FY 1989 budget request includes sufficient funds to support a 384 MMBF timber sale program in Region 3, approximately 344 MMBf of these sales will have purchaser credit roads.

190. Question: I understand that there is an expected record timber harvest demand in excess of 450 MMBF in Region 3 in FY 1989. Is the road construction budget request sufficient to support at least a 400 MMBF offer program in FY 1989? If not, what funding level would be necessary?

Answer: The FY 1989 road construction budget request includes funding which will support a 384 MMBF timber sale program in Region 3. To support a 400 MMBF timber sale program would require an additional $527,000 of Forest Road Program funds and an additional $166,000 of purchaser credit funds. However, we believe the President's Budget provides a balanced program for all Regions.

191. Question: Could you provide a brief description of Blubber Creek reforestation project on the Dixie National Forest?

Answer: The Blubber Creek Reforestation project is part of a Land Stewardship Service Contract on the Dixie National Forest designed to complete a combination of resource treatment activities needed to meet a prescribed forest vegetation management plan on a rather large area of land.

The project includes intermediate stand sanitation, slash disposal and reforestation. Reforestation will involve planting 1,057 acres over a five year period. The objectives of this project are to finish the preferred treatments so that the area can provide a desirable contribution to the natural resource program on the Dixie National Forest.

192. Question: What are the benefits that this kind of management contract provides to the Forest Service? Do you see other beneficial applications of this concept?

Answer: The project will reduce fire hazard, improve watershed protection and the quality and yield of timber stands in the Blubber Creek area through intermediate cutting, slash disposal and reforestation. The concept has broader application. It can be used as an umbrella to achieve definable "end result" resource objectives regardless of the mixture of resources. Components of timber sales, roads, reforestation, thinning, watershed rehabilitation, and wildlife projects could be linked in a single contract. The intent is to produce a combined service contract that would be more flexible and less expensive than a series of individual contracts.

I recently testified before the Senate Small Business Committee regarding the Forest Service small business timber set aside program, and also heard the testimony presented by the Associate Chief and the Associate Administrator of the Small Business Administration. It was my conclusion that the Forest Service has devoted a great deal of time in developing the proposed changes, and a great deal of effort to assure a fair program for all interests.

193. Question: From the comments I have received, it would seem that the Forest Service should, in implementing the proposed changes in the regulations, exercise some flexibility in managing the program in respect to national and regional differences. Would you agree? Will the proposed changes allow the Agency that flexibility? How will the proposed changes effect timber sales revenues?

Answer: We do agree that flexibility is needed in managing the Small Business Timber Sale Set-Aside program. The proposed changes will allow us the flexibility we need to account for regional program differences. We expect the proposed changes to have no measurable effect on timber sale revenue.

194. Question: What is your current timeframe in implementing your proposed adjustments in the set aside program?

Answer: The timeframe is not definite but we would like to implement whatever changes we determine are appropriate by early this summer.

I testified in favor of an experimental, or trial, program in the Southwest which would give special consideration for "dependent communities" in the timber set aside program.

195. Question: It is my understanding this could be administered under current authority and that the Forest Service maintains a "Dependent Community" list. Is that correct? What steps are being taken to consider or set up an experimental program?

Answer: Such a program can be administered under existing authority, but the Authority provided under the Small Business Act (15 U.S.C. 631) does not extend to protecting the interests of large businesses that have operations in small towns. Those communities with qualifying small businesses can be included in such a program. The Forest Service does not maintain an official list of dependent communities. However, we do have criteria used to determine dependency and from time to time produce such a list in response to issues. We have asked the Regional Forester of the Southwest Region to consider an experimental small business set aside program keyed to dependent communities. This experiment will require the cooperation of the local timber industry and the Small Business Administration.

## QUESTIONS SUBMITTED BY SENATOR JAKE GARN

### STRAWBERRY VALLEY REHABILITATION

196. Question: Are there funds in the President's Budget to accomplish rehabilitation work on Bureau of Reclamation lands proposed to be transferred to the Forest Service? If not, how much money would be required?

Answer: The President's Budget does not contain a request for funds to initiate rehabilitation work on the Strawberry Valley Project lands. Funding needs have not been determined.

197. Question: How many acres are involved in this transfer? If approved, when will this transfer occur?

Answer: Approximately 56,800 would be involved in the transfer. The transfer would take place immediately after passage of the boundary modification legislation.

198. Question: If the Congress approves funding for rehabilitation before the actual transfer of lands by the Bureau of Reclamation to the Forest Service, will the Forest Service transfer the funds to the Bureau of Reclamation to begin the work?

Answer: Our preferred course of action would be to hold the funds until the transfer took place. We would then implement needed management changes and proceed to do the rehabilitation work. It would not be our intent to transfer funds to the Bureau of Reclamation.

199. Question: What types of work will be accomplished? Please include a schedule and breakdown of proposed work.

Answer: Specific plans and schedules for the rehabilitation have not been developed since the Forest Service does not have jurisdiction over the lands. The plans could include a variety of land treatment measures including:

- Controlling noxious weeds and undesirable vegetation;
- Reseeding desired plants for watershed protection and forage production;
- Planting streambank vegetation for stream channel stabilization and improved fisheries habitat;
- Installing instream structures for channel stability and fisheries habitat;
- Realigning stream channels that have been improperly straightened or moved during past drainage projects;
- Constructing exterior boundary fences to control unauthorized livestock grazing;
- Constructing interior pasture management fences for proper management of permitted livestock grazing;
- Constructing livestock water developments needed to reduce livestock impacts on natural stream channels, and;
- Restoring the fish spawning capability of the tributary streams to provide natural recruitment of trout to the popular Strawberry Reservoir in place of expensive hatchery trout.

200. Question: Who will actually accomplish the work, employees and/or contractors?

Answer: If the Project Lands are transferred to the National Forest System, the development work will be accomplished by Forest Service personnel and by Forest Service contractors from the local area. Contributed work is expected from volunteer groups; local, State, and Federal agencies; and from the local livestock grazing association.

201. Question: Will there be public involvement and coordination with the State of Utah Department of Natural Resources?

Answer: The Forest Service would solicit comments on the rehabilitation plans from all interested parties, including citizens, groups, and other agencies. Provisions of the National Environmental Policy Act and the National Forest Management Act will be followed. In particular, the State of Utah Department of Natural Resources will be encouraged to participate as a member of the interdisciplinary team.

202. Question: Who will benefit from this investment?

Answer: The State and local community will be the primary benefactors of investments to rehabilitate and properly manage the Project Lands. Many renewable resource benefits will be available to the public, including recreation activities. Investments will also allow for the production of high quality water and for the production of commodity benefits, such as livestock grazing and timber.

203. Question: Does this proposed action have support from Utah environmentalists and sportsmen?

Answer: Yes, the Utah Wildlife Leadership Coalition (60,000 members) fully supports the proposal. The Coalition includes both environmentalists, sportsmen and the Utah Wilderness Association.

## QUESTIONS SUBMITTED BY SENATOR DON NICKLES

Over the last few years, I have contacted the Forest Service on behalf of many of my constituents regarding the management of the Ouachita National Forest in Oklahoma. I am deeply concerned with the numerous complaints about huge clearcuts in clear view from the otherwise scenic Talimina Drive. Additionally, even-aged management practices are effectively eliminating hardwood trees from the forest.

204. Question: How has the Forest Service addressed these concerns?

Answer: The Forest Service is currently working with Congressman Watkins and his staff to address concerns regarding clearcuts that are visible from Talimina Drive.

The Forest has reopened the planning process so that an amendment can be prepared to the existing forest land management plan. This amendment will evaluate whether changes are necessary, such as reducing the amount of timber harvested by clearcutting, possibly increasing the use of single tree selection, group selection, or reducing the use of herbicides in sensitive areas.

We are making changes in our management practices while the amendment is being prepared. The forest has recently stopped clearcutting along the sensitive roadside zones. In other areas, cuts will be much smaller and hardwoods will be left.

205. Question: Recently, legislation was introduced in the House to designate portions of the Ouachita Forest in Oklahoma as a national wilderness and recreation area. What are the Forest Service's views on this proposal? On the legislation specifically?

Answer: The land designations in H.R. 4354 are generally compatible with the Ouachita National Forest Plan.

The Administration has not yet finalized a position regarding H.R. 4354, however, we are in the process of analyzing the impact of the bill on the Ouachita National Forest.

206. Question: What is the largest size of clearcut or even-aged timber harvest which is allowed in the Ouachita Forest and how much distance is required between such plots?

Answer: The maximum clearcut size in the existing forest plan is 80 acres in pine stands and 40 acres in stands of other species.

Interim guidelines that are being followed, until an amendment to the existing forest plan is completed, specifies that 50 acres is the maximum clearcut size.

The limits on the size of clearcuts in visually sensitive areas depends upon the visual quality objectives for the type of area involved. For example, in the foreground of a sensitivity level I travelway with a visual quality objective of retention, the maximum clearcut size is 10 acres. The distance between clearcuts also depends upon where the clearcuts occur, but the minimum distance allowed is 330 feet.

207. Question: I would appreciate it if you could advise me if the Forest Service has ever contracted with outside parties to develop a tourism and recreation plan such as is outlined in Section 13 of H.R. 4354. Or has the Forest Service contracted or obtained for free, the assistance of State agencies to develop plans, such as State tourism and recreation agencies?

Answer: The Regions indicate that they are not aware of any instance in which the Forest Service has contracted with outside parties to develop a tourism development or marketing plan such as that discussed in Section 13 of H.R. 4354. On the other hand, in a few cases, such as on the Jefferson and Umpqua National Forests, State agencies and universities have worked with the Forest Service on such plans.

We view a comprehensive State tourism or recreation plan to be a State responsibility in which National Forests activities could be incorporated.

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## QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

Mr. Chairman, I join you in welcoming Chief Dale Robertson and all our good friends from the Forest Service here this morning. I have followed the Forest Service programs with great interest for many years. Our forests are very important to all of us from Mississippi. Forest products are very important to the State's economy. Most years, forest products are among the top cash crops in Mississippi. In fact, in some years they are number 1. I complement you and your employees for your contributions to forest resource management. Your work in State and Private Forestry, Forest and Wood Products Research, and Integrated Pest Management has set the pace, both in this nation and abroad.

### FOREST PLANS

The Forest Service has dedicated substantial effort developing Forest Plans in response to the National Forest Management Act.

208. Question: How has the Forest Service changed its program balance in response to that planning process.

Answer: The National Forest Management Act (NFMA) mandated the development of integrated resource management plans, with extensive public involvement. The land management planning process requires the Forest Service to follow legal standards in developing forest plans and to manage the National Forests in accordance with those plans.

As a result of the NFMA planning process, there is increased focus on recreation, cultural resources, wilderness, and wildlife programs.

Since forest plans are local plans, emphasis changes from forest to forest.

Prior to NFMA planning, wildlife, soils, water, and dispersed recreation were often managed through mitigation of impacts caused by timber harvesting. Through planning, more direct consideration has been given to each of these important resource areas.

The exact program mix on a National Forest is determined by the Forest's unique resource opportunities, local demand and public issues, and National and Regional level output objectives. The result has been greater emphasis on wildlife, recreation, wilderness, and special areas.

209. Question: What changes in program balance are called for in the Southern Region and in Mississippi?

Answer: In the Southern Region, the Appalachian Mountain Forests and those in Arkansas have been the focus of more intense interest in special areas, wilderness, recreation, and wildlife resources on the part of the public than were Coastal Plains Forests. Through the issue-driven forest planning process, forest plans reflect these differences. However, plans on the Coastal Plains do reflect notable shifts in program balance with increases in these resource programs.

In Mississippi, the balance of program emphasis has shifted significantly towards wildlife habitat management. In terms of the percentage of total program emphasis, there has been approximately a 20% shift toward the wildlife program since the beginning of forest planning. Rare or endangered species of plants and wildlife are predominately addressed in the plan, as are important game and management indicator species. Management practices to protect and enhance habitats for these species are spelled out in standards and guidelines which are the "working parts" of the forest plan. Habitat objectives are primary factors in all project level planning, even in areas being managed for the production of wood. Requests are being made to fund wildlife management activities at levels higher than ever before.

The resources of fire, soils, water, and fisheries are also given better focus as a result of planning, as has occurred in other Coastal Plains Forests.

210. Question: How does the program balance in the proposed FY 1989 budget compare with what is called for in the Forest Plans?

Answer: FY 1989 was the Forest Service's first attempt to compare Servicewide forest plan data and budgets. The 1989 forest plan budget total was developed forest by forest and totaled to the national level.

For FY 1989, forest plans are funded at approximately 77 percent.

## INITIATIVES

In Mississippi, some landowners can make as much or more profit by leasing their land to private hunting clubs as they can by farming row-crops. Each year less private land is available for public hunting and fishing. This puts more pressure on public lands. I understand that there has been much public response to the Forest Plans calling for more recreation, hunting, and fishing opportunities. The Forest Service has responded very positively by developing recreation, wildlife, and fish initiatives. I commend you for your "Rise to the Future" fisheries program. It has been very warmly received in Mississippi, where about 1 million people fish and spend about $400 million every year.

211. Question: How will the implementation of your recreation, wildlife, and fish initiatives impact the timber program?

Answer: The recreation "initiative" is actually a Strategy that has been developed to bring the recreation management of the National Forests closer in line with the needs of the American public. It is not a funding initiative, rather it is a slight adjustment and shift in policy. For example, the Strategy report states that:

"Our program direction and design must reveal a new vision of added values in place of customary mitigation. Total ecosystem management can be achieved without reducing social benefits. We must, through our actions, develop a greater tolerance by the public for sharing uses."

Proper timber management is compatible with provision of both recreation and wildlife oriented activities. In fact, timber harvest often enhances motorized recreation opportunities by providing roads for access and improving forage and shrub cover for small game. The wildlife "Rise to the Future Program" focuses primarily on insuring that spawning and rearing habitats are not degraded by timber sales and providing fisheries enhancement.

212. Question: How does the FY 1989 budget request in these areas compare to what is called for in the Forest Plans?

Answer: The President's Budget would fund recreation management at approximately 62% of the forest plans. The President's Budget would fund fish and wildlife habitat management at approximately 57% of the forest plans.

213. Question: How does the FY 1989 budget request in other resource reas such as timber and watershed compare to what is called for in the forest plans, both nationally and in the Southern Region?

Answer: The FY 1989 President's Budget funds the timber program at approximately 91% of the plan and soil and water at 61% of the forest plans. In the Southern Regions, the percentages are approximately 90% for timber and 58% for soil and water.

214. Question: What was the Agency's FY 1989 budget request in the various resource program areas?

Answer: The FY 1989 Agency Request for recreation, wildlife, timber and soil and water was as follows:

| Program | Funding Request |
|---|---|
| Recreation Use | $169,373,000 |
| Wildlife and Fish Habitat Management | $ 68,800,000 |
| Timber Sales Administration and Management | $215,433,000 |
| Soil, Water and Air Management | $ 44,886,000 |

215. Question: Is the Forest Service Research program sufficient to provide the information and technology needs to efficiently implement these initiatives? What are the research program areas in the South that will have to be strengthened?

Answer: The Forest Service has an active and productive research program to support the recreation, wildlife, and fisheries initiatives by providing knowledge and technology concerning the management of these important resources.

The FY 1989 budget allows for the continuation of research on the highest priority research problems related to these initiatives. A new fisheries unit was established at Blacksburg, Virginia with the addition of two scientists to the research program to support the "Rise to the Future" program. The planning efforts to implement the fisheries and recreation initiatives have identified needs for additional information concerning the management of the warm-water fisheries and the related wetland types. We will be seeking opportunities to strengthen this line of research.

In the South we have capabilities to effectively strengthen our research programs and to address several additional problems associated with these initiatives. The areas include recreation research at Athens, Georgia; water/timber interactions research at Oxford, Mississippi; fish improvement research at Blacksburg, Virginia; wildlife research at Nacogdoches, Texas; and threatened and endangered species research at Clemson, South Carolina.

216. Question: Are other initiatives being developed in response to public input to forest plans? If so, in what specific areas?

Answer: Forest plans are local management plans and therefore, are responsive to local needs and there is a wide variety of emphasis on programs or individual forest. The recreation initiative is the major Forest Service initiative being proposed this year.

## NORTH AMERICAN WATERFOWL MANAGEMENT PLAN

217. Question: What is the Forest Service doing to help implement the North American Waterfowl Management Plan?

Answer: The Forest Service is developing a draft waterfowl habitat development management strategy based on forest planning data and within the guidelines and priorities of the North American Waterfowl Management Plan. Forest Service personnel have met with the Fish and Wildlife Service, Ducks Unlimited, and the various States, represented by the International Association of Fish and Wildlife Agencies, to discuss the role of the Forest Service in managing waterfowl habitat in the National Forest System.

Opportunities range from projects in the 700,000 acre Copper River Delta of Alaska, to marsh areas in the National Forests and National Grasslands of the North Central States, to the greentree reservoirs and bottomland hardwoods of the Mississippi River lowlands, and the resources of the western National Forests. The draft strategy documents an emphasis in implementing the Forest Service program in strong and active partnerships with the States, Ducks Unlimited and other conservation groups, and other Federal agencies.

## GREENTREE RESERVOIRS

218. Question: Is funding included in the FY 1989 budget request to carry out the greentree reservoirs program on the Delta National Forest? If not, what funding is needed to manage the greentree reservoirs?

Answer: Funding is available in the FY 1989 President's Budget to provide for maintenance and pumping of the water to minimum levels in two completed greentree reservoirs. To fully manage the 2 greentree reservoirs, a program of $40,000 will provide pumping, drainage control, levee and pump maintenance on two operational greentree reservoirs totaling 2,025 acres.

## SOUTHERN TIMBER STUDY

The Southern Timber Supply Study indicated that a reduction in growth of pines and hardwoods was occurring. Last year, this Committee expressed concern about the health of our forests. I have heard the Forest Service was preparing a strategic plan dealing with the forest health issue.

219. Question: What progress have you made and how is this affecting Mississippi?

Answer: The report on forest health has been completed and it will be distributed in the near future. We have begun the development of a plan to implement the recommendations in the report. The recommendations do not provide for a quick fix of forest pest problems, but provides for more efficient and effective applications of existing methods.

Specific recommendations for Mississippi are not included in this nation-wide report. Mississippi will benefit as improvements in pest management programs are implemented in the field.

220. Question: Did the forest health report identify actions to be taken to enhance forest health in the South and solve forest pest problems? What is the outlook concerning the southern pine beetle?

Answer: The report on forest health identified 8 strategic issues and made 25 recommendations for dealing with the issues of forest health and forest pest problems, most of which apply to the South as well as other parts of the country.

Specific problems that were discussed in the report include southern pine beetle, fusiform rust, root diseases, nursery and seed orchard pests and air pollution. The report explained the need to strengthen silvicultural and management practices to prevent or minimize impact from these pests.

The current southern pine beetle outbreak began in Mississippi in 1984. Activity peaked in 1986 and beetle populations have remained static or declined in the last 2 years. There are approximately 5,951,000 acres of susceptible host type in Mississippi and 1,340,000 acres were affected during 1987. If the insect populations follow their historical pattern, a major increase is not expected over the next couple of years.

221. Question: What additional progress could be made with an additional $5 million for the Southern Forest Productivity - Priority Research Program?

Answer: The President's budget for FY 1989 includes $7.9 million for the Southern and Southeastern Forest Experiment Stations and the Forest Products Laboratory for continuing research on the protection, management, and improvement of southern forest productivity.

Additional funding in this area would be used to initiate and accelerate research needed to: (1) enhance timber production in southern forests; (2) identify competing uses for southern forests and determine how use conflicts can be avoided or resolved; and (3) develop management techniques needed to assure that increased production of timber and other forest products does not adversely affect the quality of southern forest environments.

## FOREST PEST MANAGEMENT

222. Question: Mississippi received $67,000 from the Forest Service as the Federal share of the State and Private Forestry's forest pest management program. Forest Service analyses indicates that a more realistic amount would be $97,000. Does your FY 1989 budget contain funds needed to support the full Federal share of this program?

Answer: The 1989 President's Budget of $67,000 for cooperative pest survey and technical assistance in Mississippi is the same as the FY 1988 level.

Cooperative insect and disease suppression projects are eliminated in the FY 1989 President's Budget. An exception is where intermingled State and private lands are involved in a Federal lands suppression project.

It is expected that States will continue these activities according to their own priorities and budget constraints.

223. Question: How much additional money would be needed to fund the State's cooperative forest pest management program at the level your analyses suggested was necessary to achieve an effective National effort in forest pest management?

Answer: A figure of $3.3 million for the cooperative pest survey and technical assistance was calculated on the basis of planned professional staffing alternatives at the State level. As specific benefits to the Federal government have not been identified, no additional funding has been requested based upon the analysis.

## MARKETING INITIATIVE

Funding for a Forest Products Marketing Initiative was included in the FY 1988 budget to work towards reducing the $6 billion forest products trade deficit. The initiative called for a very broad cooperative network including State agencies, private industry, and the Forest Service.

224. Question: What progress has been made on this initiative?

Answer: After considering a proposal for a $5,000,000 program to stimulate domestic and export marketing of forest products, Congress approved $1,000,000 for the effort in FY 1988. Excellent progress on the marketing initiative is being made. Individual projects that address local, regional, and National marketing issues have been submitted and have received several levels of review. Fifty one projects have been approved and many of them are already underway. A project concerning the feasibility of utilizing wood residue as fuel for furniture plants in Mississippi was one of the approved projects.

225. Question: What are the prospects for expanding domestic or foreign markets for forest products?

Answer: Marketing workshops, demonstrations, product catalogs, producer/dealer directories and video tape training devices are some examples of projects that are being developed to help stimulate domestic markets. Export workshops, product samples, demonstrations, and handbooks that clarify export trade terminology and units of measure are being developed to solve some of the problems associated with exporting wood products. All of these activities will contribute to a much broader understanding of marketing opportunities by wood industry managers. That higher awareness will be a firm basis upon which future marketing strategies can be structured.

226. Question: What expectations do you have for finishing the initiative?

Answer: The National Marketing Initiative was developed at the direction of Congress after the National Association of State Foresters had proposed that $5 million be spent annually, for five years, on such an endeavor. While that amount could be used, if offset by reductions in other Federal programs, the plan is flexible enough to deal with lesser or greater amounts of funding.

The 1989 President's Budget does not contain funding for the Marketing Initiative. This project is similar to those in the Agricultural sector of the economy, where it is common to finance such reasearch and promotion activities through industry "checkoffs" and other self-imposed assessments, rather than use Federal funding.

## CONSERVATION RESERVE

Mississippi is very close to the top Nationally in tree planting under the Conservation Reserve Program (CRP).

227. Question: How many acres were submitted for tree planting in the February, 1988 sign-up under the CRP Nationwide and in Mississippi?

Answer: Landowners bid nearly 536,000 acres for tree planting in the February sign-up for the Conservation Reserve Program. This is almost 12 percent of the 4.5 million acres of cropland offered in that sign-up. Mississippi farmers offered 57,800 acres for tree planting, the third largest State contribution.

228. Question: How did the new rules for the CRP, such as the reduction from 2/3 to 1/3 field erosion predominance, affect sign-ups for tree planting Nationwide and in Mississippi?

Answer: With the exception of the fourth sign-up, when corn bonuses were offered, this sign-up for tree planting was nearly twice as large as any previous offering. The new rules also achieved a 12 percent level for tree planting acres bid. This is approximately the goal of "1/8 of the acres enrolled" contained in the 1985 Food Security Act. Mississippi's 57,800 acres of tree planting bid was 26 percent higher than in the previous bid period. Tree planting accounted for 58 percent of all Mississippi cropland offered into the CRP during this most recent sign-up.

229. Question: What is being done to maintain high quality tree planting under the CRP?

Answer: The Forest Service Southern Region and the State Foresters initiated field reviews of tree planting to inspect the quality of actual planting conducted under the CRP. This cooperative effort has, yielded in one year, an 11 percent improvement in the quality of tree planting in the Southern States. Many States have established tree planting contractor and vendor training programs. Mississippi holds workshops throughout the state to train these vendors in proper planting techniques, seedling care, and program requirements.

## COOPERATIVE FIRE PROTECTION

I understand that the Forest Service has recently developed Regional Plans for managing Cooperative Fire Protection funds.

230. Question: What programs do they encompass and how do they affect fire crews in Mississippi?

Answer: Regional Cooperative Fire Protection plans cover the Rural Fire Protection and Control program, the Rural Community Fire Protection program and the Federal Excess Property program. These three programs together provide the technical assistance and resources for improving the efficiency and effectiveness of State and local fire organizations.

The plans are developed with State input. They tend to improve communications and cooperation among those served. The completed plans establish priorities for allocation of federal resources and directions for accomplishment of priorities over the next five years. The plans also provide a means to track program accomplishments.

In FY 1988, Mississippi's State Forestry Commission will update the fire management portion of their plan. The new County Fire Prevention plans will be developed to include special emphasis on vast tree plantations. The radio communication system will be upgraded to the extent that budgeted funds will allow. Additional training will be given to crews and cooperators to bring all firefighters up-to-date on suppression tactics and the National Interagency Incident Command System.

231. Question: How does the Rural Fire Prevention and Control Program serve Mississippi? What are the program needs to maintain an efficient level of protection Nationally and in Mississippi?

Answer: The Rural Fire Prevention and Control (RCFP) program provides State wildland protection agencies with technical and financial assistance. The emphasis is on providing assistance that will lead to improving the State's ability to provide wildland fire protection. Examples include: sharing and developing new technology; collecting information to identify and evaluate trends in wildfire causes; coordinating, consolidating and sharing protection forces among the other States and Federal agencies; and embarking on new initiatives with high benefit/cost ratios that are of National as well as State and local interest, such as the "wildland urban interface initiative".

In times of extreme fire conditions, States experiencing more moderate conditions are capable of providing assistance to States that require outside assistance from others. This allows for more efficent fire protection from all levels of government.

Appropriations for RFPC during the several fiscal years have been about $13.5 million. In FY 1988, Mississippi received $284,298 for the Rural Fire Prevention and Control program. The funds will be used to support fire prevention and control activities that are a part of the Forestry Commission's five year plan. Along with the other Mississippi supported RFPC activities mentioned previously, fire and weather data will be collected and used for planning purposes.

232. Question: If the State and Private Forestry budget for FY 1989 was funded at the FY 1988 level, how would the additional funds be used?

Answer: The increased funds could be distributed to specific activities according to overall Forest Service national program objectives. Some of the activities include training, equipment, utilization of shared forces and fire efficiency planning. Participation of the States would vary according to each State's interest and ability to support national objectives. The funds could also be distributed for the collection of essential fire related statistical data and provide further technical assistance for planning and management purposes.

233. Question: If Congress funds State and Private Forestry at the FY 1989 budget request, specifically what programs will be eliminated or curtailed?

Answer: The President's Budget redirects the purposes and objectives of Forest Service involvement with the States fire protection program. Essential technical assistance for fire protection is provided for at the proposed funding level. All financial assistance, including funds for information collection, is eliminated in FY 1989 and will require the States to establish their own priorities for funding fire protection programs.

## QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

### LAKE OUACHITA LANDS

I understand that a private landowner with substantial inholdings in the Ouachita National Forest is interested in selling or exchanging approximately 6,000 acres around Lake Ouachita.

234. Question: Are you familiar with this area and the lands involved? If appropriated funds were made available, would you favor the acquisitions of these tracts?

Answer: The 6,000 acres are owned by Weyerhaeuser Corporation. They are suitable for inclusion in the National Forest System. We believe that land exchange should be the primary method of landownership adjustment, and would prefer that approach.

### STATE AND PRIVATE FORESTRY

The budget eliminates funding for forest resource management and for seedlings, nursery and tree improvement. Both programs are critical for the implementation of the Conservation Reserve Program (CRP).

235. Question: How do you expect to carry out and administer tree planting in the Conservation Reserve Program? How will the demand for seedlings (which is expected to double in the next four years according to Forest Service figures) be met without Federal funding?

Answer: Alternative delivery systems would be utilized within State and local government organizations to provide technical and financial responsibilities in concert with their ability to respond to the demand for CRP services.

The elimination of technical and financial assistance to State tree improvement programs will result in a shift of responsibilities to State and local governments according to their ability and priorities to maintain such programs.

To meet the requirements of the CRP and the upward trend in tree planting on private lands, States are increasing their nursery programs. Success of the tree planting program will be dependent upon States to upgrade their seedling and nursery facilities.

### MINERALS MANAGEMENT

Over the past two or three years there has been a 300% increase in hard rock mining activities on the Ouachita National Forest, primarily associated with an expanding market for quartz crystals. Your budget requests an increase of $2.9 million over the FY 1988 appropriated level for minerals management.

236. Question: How much of the increase will be allocated to the Ouachita?

Answer: During development of the FY 1989 budget the increase in hard rock mining on the Ouachita National Forest had not surfaced. At that time, the Region had programed an increase of 17% ($346,000) above FY 1988, most of which went into their leasable minerals program. Since development of the FY 1989 budget, the forest and region have initiated efforts to reprogram funds to administer their hard rock minerals program on the Ouachita National Forest. Specific amounts have not yet been determined, but it is estimated $25-30,000 will be programmed for this purpose.

### REAL ESTATE MANAGEMENT

You have requested a small increase for real estate management. Recently, the Corps of Engineers and the Forest Service executed an agreement to exchange a substantial amount of acreage around Lake Ouachita to rationalize the management of the area.

237. Question: Will you assign additional resources to the Ouachita to implement this exchange?

Answer: Although we are still in the planning stage on the Lake Ouachita Interchange, we do not anticipate significant additional costs, compared with present management costs on the Forest. In the short term, we may need to do shift funds to cover our responsibilities on the newly acquired lands.

## PUBLIC LANDS CLEAN-UP

238. Question: How did the first Public Lands Clean-up Day go on the National Forests?

Answer: All of the Forest Service units that participated in the Federal Lands Cleanup program felt that it was very successful. Not only did the Forest Service get land cleaned up, participants came away with an increased appreciation of the importance of keeping our lands free of litter by cleaning up as we go. Participation in these projects in many instances led to the planning of more projects of this nature for 1988. Forest Service benefited in many ways from this venture.

Approximately 7,350 volunteers participated in activities directly related to Federal Lands Cleanup Day at a cost of approximately $98,000. These volunteers accomplished approximately $428,000 worth of work with a net savings of approximately $330,000 to the Forest Service for a return of $4.38 for each dollar invested.

## RECREATION INITIATIVE

The Forest Service is to be commended for recognizing the importance of recreation on forest lands to the public. You have said that the priorities set in the forest management plans led to the development of the "Recreation Initiative".

239. Question: Do the plans place any priorities on particular types of recreation or recreation needs?

Answer: The forest plans provide direction for management of various recreation opportunities. Each national forest plan places priorities on different types of recreation opportunities to be provided to the public, based on both National and local needs. The forest plans call for a variety of dispersed and developed recreation services, motorized and nonmotorized opportunities, and both publicly operated and privately operated facilities for public use.

240. Question: What public input has there been to the recreation initiative?

Answer: There has been considerable public input in the development of the National Recreation Strategy, beginning with the input received during the forest planning process. As plans for the Strategy development were initiated, the team leaders individually interviewed forest recreation user group leaders to determine if the Agency was meeting their needs. A symposium was held in November, 1987 to gather input. Over 100 experts and leaders in the field of recreation and marketing reviewed six strategy papers developed by Forest Service commissions presenting the topics of Customers, Marketing, Services, Recreation Setting, Technology, and Partnerships. Attendees ranged from the Wilderness Advocacy Groups to Downhill Ski Industry representatives, from State and local government employees to timber and range industry representatives. After a day of presentation the attendees met with the commissions and contributed their views on the proposed action plan. For three months following the symposium, the strategy was individually presented to many other groups and individuals, until the eventual strategy was molded to its present state. Input is still being received and processed.

241. Question: A concern has been raised that the "Recreation Initiative" could lead to more highly developed commercial type recreation facilities being constructed on national forest lands, with too much control in the hands of the private developers. Could you comment on this?

Answer: The Forest plans identifies the amount and types of recreation development for a given National Forest. The goal of the National Recreation Strategy is to implement the forest plans.

The National Recreation Strategy does not propose "privitization" for the recreation program. To "privitize" is to change business from public to private control or ownership. The Forest Service intends to maintain "ownership and control" of the recreation program by retaining complete administrative responsibility for these areas. However, rather than simply "permitting" private industry to operate recreation special use areas like ski areas and campgrounds, the Agency intends to truly join hands in a partnership wih providers. The National Recreation Strategy will also strengthen partnerships in dispersed recreation management. Trail maintenance, wilderness use education, and travel information services will be stressed in the challenge cost share component of the Recreation Strategy in FY 1989, along with site and trail construction.

## SUBCOMMITTEE RECESS

Senator Byrd. The subcommittee will stand in recess now until tomorrow, April 12, at 10 a.m., at which time the subcommittee will review the 1989 budget estimate for the energy conservation program.

[Whereupon, at 10:29 a.m., Monday, April 11, the subcommittee was recessed, to reconvene at 10 a.m., Tuesday, April 12.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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TUESDAY, APRIL 12, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 10:03 a.m., in room SD–116, Dirksen Senate Office Building, Hon. Dale Bumpers presiding.

Present: Senator Bumpers.

## DEPARTMENT OF ENERGY

### ENERGY CONSERVATION PROGRAMS

### STATEMENT OF DONNA R. FITZPATRICK, ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY

**ACCOMPANIED BY:**

**JOHN R. BERG, PRINCIPAL DEPUTY ASSISTANT SECRETARY**
**ALAN J. STREB, DEPUTY ASSISTANT SECRETARY FOR CONSERVATION**
**FRANK STEWART, DIRECTOR OF STATE AND LOCAL ASSISTANCE PROGRAMS**

### BUDGET REQUEST

Senator BUMPERS. This is the time for the subcommittee to review the 1989 budget request for the energy conservation programs for the Department of Energy.

The 1989 budget request for the energy conservation programs is $89,359,000, down 71 percent from this year's appropriation of $309.5 million. The decrease is actually more severe than these figures indicate because in addition to the appropriated level, there's also another $58,780,000 available for 1988 conservation programs, making total funding for this year $368,297,000.

With this adjustment, the request actually represents a 74-percent decrease from the current program level.

The major portion of the 1989 decrease is a reduction of $203 million in State and local grant programs for low-income weatherization assistance, the schools and hospitals program, and grants related to State energy office activities. The reduction for the State and local grants programs is some 96 percent below the appropriation for the current year.

In addition to the sharp reduction in these grant programs, funding for conservation research activities would be reduced from $156 million for the current year to $86 million for 1989. This is a reduction of 45 percent.

With us this morning on behalf of the energy conservation program is Miss Donna R. Fitzpatrick, Assistant Secretary for Conservation and Renewable Energy.

Miss Fitzpatrick, your entire statement will be made a part of the record. If you will please introduce your associates and briefly summarize your statement, we'll proceed to the questioning.

### INTRODUCTION OF ASSOCIATES

Miss FITZPATRICK. Thank you, Mr. Chairman. Accompanying me today, beginning on my left, is John Berg, who is the Principal Deputy Assistant Secretary, to my far left.

Senator BUMPERS. Welcome, Mr. Berg. This is Mr. Berg [indicating]?

Miss FITZPATRICK. That's Dr. Berg, yes. Next to me is Mr. Alan Streb, who is the Deputy Assistant Secretary for Conservation. And on my right, Mr. Frank Stewart, who is the Director of the Office of State and Local Assistance Programs.

I do have a brief statement——

Senator BUMPERS. Are you going to be out of a job if we approve this budget? [Laughter.]

Miss FITZPATRICK. No; he has billions and billions to look after, Mr. Chairman. [Laughter.]

I do have a statement for the record and I'd like to summarize it briefly.

We appreciate the opportunity to appear before the subcommittee today and provide you with information on our fiscal year 1989 budget request.

The budget for the conservation programs is consistent with and supports the goals and objectives of the national energy policy and is fully responsive to the administration and congressional goals for deficit reduction. In support of these goals, we have requested $86.3 million for energy conservation R&D, and $8.6 million for the Office of State and Local Assistance Programs to provide program management for prior-year Federal appropriations and for the oil overcharge moneys which have been distributed to the States.

The conservation R&D budget was developed based upon our multi-year program plan. The approach we use is to set a goal for each of the programs, then carefully develop a peer-reviewed plan to accomplish the goal.

In general, the goal for the conservation program is to contribute to the technical and economic environment necessary to support development of energy conservation technologies.

To accomplish this goal, we established a prioritization of research needs. The budget request to implement this plan is not a generous one. But within the current Federal budget limitations, we concentrate our efforts on the highest priority research to address the most critical scientific and technological issues. We believe that this will provide an effective program that will accomplish our ultimate goals.

We also continue to focus on improved dissemination of the results of our R&D and an expanded collaboration with the private sector.

The research sponsored by the Federal Government and the private companies in the past is now bearing fruit, in better materials and improved components and systems designs to increase energy use efficiency, and make alternative fuel use reliable and economically competitive.

Now we must look to the future and pursue those activities which will slowly but surely expand and improve our energy use options. The way out of our energy problems in the long run is going to be through better technology to improve both utilization, efficiency, and the ability to use alternative fuels. And the only way to better technology is through research.

Here is where there are some crucial decisions to be made and where we and the Congress can continue to work together to assure that every dollar appropriated for R&D is spent productively.

If we're going to spend more than has been requested, then we must maintain the course of the conservation program and continue to support justifiable peer-reviewed work that actually advances the national interest.

It is important that decisions we make truly move the Nation toward greater energy efficiency.

Therefore, Mr. Chairman, we'd like to invite you and the subcommittee to review our multiyear plan which we have recently delivered to you and to give us your comments because we need your help in doing our job of supporting the best and most productive research for energy efficiency.

## PREPARED STATEMENT

Mr. Chairman, we appreciate the opportunity to appear here today and we are ready to answer any questions you may have.

[The statement follows:]

## STATEMENT OF DONNA R. FITZPATRICK

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to appear before you today on the FY 1989 Congressional budget request concerning the Department's Conservation Research and Development and State and Local Assistance programs. The budget for these programs is consistent with the goals and objectives of national energy policy and is fully responsive to the Administration and Congressional goals of deficit reduction.

I would now like to discuss each of our major program areas and its related FY 1989 funding request.

### BUDGET REQUEST FOR ENERGY CONSERVATION R&D

The FY 1989 budget request for energy conservation research and development totals $86.3 million. It includes $14.9 million for Buildings and Community Systems, $16.5 million for Industrial Programs, $28.4 million for Transportation and $24.1 million for Multi-Sector programs and $2.4 million for Policy and Management.

### BUILDINGS AND COMMUNITY SYSTEMS

We are requesting $15.0 million for Buildings and Community Systems (BCS) research, technology transfer, and regulatory activities in FY 1989. Of the funds requested, $9.1 million is for research and development projects, $3.4 million is for legislatively mandated regulatory programs, and $2.5 million is for program direction. The R&D activities focus on selected high-risk and high-payoff projects, which are not likely to be pursued by the private sector alone. Many are carried out by private companies and institutions operating under cost-shared contracts or cooperative agreements with the Department. These activities complement industry efforts and do not displace them.

The Buildings sector uses approximately 27 quads of energy annually, 36 percent of our total national energy consumption. This energy use is forecasted to increase to 39 quads by 2010. In residential buildings, space heating, water heating, and refrigeration use the largest amounts of energy; in commercial buildings, space heating, lighting, and air conditioning use the largest amounts. It is estimated that a 30% reduction from present levels of energy use can be achieved by building envelope improvements that reduce heating, ventilating, air-conditioning, and lighting loads and that significant additional savings can be achieved by improving the efficiency of equipment used to perform these and related building functions. Our target is to reduce building energy use in 2010 to 28 quads - a savings of 11 quads from presently forecasted levels. The Buildings and Community Systems program conducts research to advance the technologies that can produce these savings and makes the results of that research available to the private sector. This program also implements building energy regulatory activities mandated by Congress.

The research and development funds are for three subprograms: Building Systems, Technology and Consumer Products, and Technology Assessment and Transfer. We are requesting $2.8 million for the Building Systems subprogram to continue research in building materials, roofs, fenestration, indoor air quality, infiltration, and ventilation; advanced commercial building subsystems interactions; building performance simulation; and residential building energy retrofit.

Our building materials research will focus on foamed insulation using non-CFC blowing agents; our fenestration research includes development of design tools, and, in cooperation with ASHRAE, window evaluation procedures.

Our roof research focuses on improving the energy performance and durability of roofs. In FY 1989, we will continue to equip and operate the Roof Research Center as a DOE user facility with industry participation. Research areas will include effects of stress and dynamic cycling of moisture on thermal performance of roofs, field testing of moisture measurement techniques, and assessments of light weight concrete and polyurethane foam roofs. These activities will be conducted in cooperation with the roofing industry.

In FY 1989, we will continue our investigations of ways to maintain acceptable air quality in energy-efficient buildings. These efforts will include continued studies of radon entry and energy efficient radon mitigation methods. We will continue to participate in interagency and private sector efforts to develop standards for indoor air quality, infiltration and ventilation. We will continue our studies of indoor air quality in office buildings, including measurements of volatile organic pollutant levels.

In the area of building subsystem interactions, we will continue development and industry review of building energy targets methodology for commercial buildings. We will continue to maintain the DOE-2 building energy performance simulation computer code and will incorporate new capabilities developed by others.

We will complete analysis of data from the monitoring of single-family retrofits and disseminate the results to users. We will complete development of the handbook for energy audits of multifamily buildings and of the methodology for measuring energy savings resulting from retrofits for low income housing.

We are requesting $4.3 million for the Technology and Consumer Products subprogram in FY 1989. The purpose of this research is to provide technologies needed to develop more efficient building energy conversion processes and equipment. The greatest promise for significant energy savings in building equipment is in heating, cooling, and lighting--areas that account for 60% of the energy used in buildings. Our work on improved efficiency in those areas focuses on thermally activated heat pumps, advanced refrigeration, and advanced lighting.

In thermally activated heat pumps, we will continue research to advance the technologies for absorption systems. We will continue laboratory testing and evaluation using breadboards of two advanced systems concepts for commercialized and one packaged prototype of a residential-size absorption heat pump and will fabricate a residential-size engineering prototype for field testing. We will also continue testing of a laboratory prototype internal combustion engine-driven heat pump and will build two engineering prototypes for field testing.

In advanced refrigeration systems, we will continue research in nonazeotropic refrigerant mixtures, including benefits of composition shifting and advanced cycle concepts, and will complete research on capacity modulation.

In lighting equipment research, we will continue to investigate advanced light sources with emphasis on magnetically loaded fluorescent lamps, surface wave lamp phenomena, and electrodeless high intensity discharge (HID) lamps. We will initiate long term tests of isotopically enriched mercury lamps.

The purposes of the Technology Assessment and Transfer subprogram are to provide the analytic tools and information needed for program planning and to ensure that research results and information on conservation in buildings are transferred to potential users. We are requesting $1.0 million for this subprogram. This funding will continue support for centralized BCS technology transfer activities, for technology assessments and program planning, and for participation in International Energy Agency agreements.

We are requesting $1.0 million to provide capital equipment to support those Buildings and Community Systems research efforts conducted by the national laboratories and universities. In addition, we are requesting $2.5 million for Program Direction. This funding will provide salaries, benefits, travel, and support of 45 FTEs to manage the Buildings and Community Systems program.

## MULTI-SECTOR

The Multi-Sector Program includes the Energy Conversion and Utilization Technologies (ECUT) Program, the Inventions and Innovation Program, and the National Appropriate Technology Assistance Service (NATAS). The FY 1989 budget request for Multi-Sector includes $17.6 million for ECUT, $4.65 million for the Inventions and Innovation Program, and $0.6 million for NATAS. The budget request also includes $0.1 million in capital equipment, $0.475 million in program direction to support 8 FTEs for Multi-Sector programs, and $0.732 for Technology Assessment and Transfer. The total Multi-Sector budget request for FY 1989 is $24.157 million.

ECUT Program research activities are interdisciplinary in nature. ECUT seeks to capitalize on basic research breakthroughs to address "real world" problems which cut across more than one energy consuming sector. ECUT research results in improved understanding of materials problems and also provides predictive models and design tools useful to the private sector for achieving greater energy productivity. The ECUT interdisciplinary technical areas are: Combustion, Thermal Sciences, Materials, Biocatalysis and Tribology. In addition, funding is requested for International Research Monitoring and Conservation Program Analysis and Planning which are conducted on behalf of the overall DOE Conservation Program.

In FY 1989, $3.6 million is requested for the ECUT Combustion Program and $1.5 million for the ECUT Thermal Sciences Program. ECUT Combustion research provides analytical and measuring techniques needed to understand the thermochemical and related processes that take place in the combustion of fuels and in the conversion of the released thermal energy to perform work. The results of this research are used to develop more efficient, reliable, and clean combustion systems and devices.

ECUT Thermal Sciences research develops improved thermodynamic and fluid dynamic analytical capabilities and experimentally validated computerized data bases. These are needed to provide the technological heat transfer surface area requirements, and improve the efficiencies of a wide variety of energy conversion processes. In FY 1989, the work will emphasize the development of advanced thermodynamics, fluid mechanics, and heat and mass transfer.

The $6.7 million requested for the ECUT Materials Program will be used to continue to investigate energy conservation applications of the new high critical-temperature superconducting materials, and other high-temperature materials (new and different ordered metallic alloys and ceramics); to pursue research on recycling polymers (lightweight materials); and to actually attempt to design a ductile ordered alloy prior to its being made in the laboratory. In the last regard, we are especially excited by our results which appear to explain why the addition of a small amount of the element boron to the ordered intermetallic alloy nickel aluminide renders ductile this formerly highly brittle material. More importantly, this insight appears to permit us to extend this knowledge to design ductility into new ordered alloys prior to their ever being made in the laboratory. This capability to design desired properties into alloys could have major implications for the international competitiveness of an important segment of the U.S. metallurgical industry.

The $2.6 million requested for the ECUT Biocatalysis Program will be used to establish a technological data base for high productivity bioreactors needed by private industry in order to manufacture industrial and commercial chemicals using biological systems which are economically and energetically competitive with conventional processes.

The $2.6 million requested for the ECUT Tribology Program will be used for research on high-temperature lubricants, development of in-situ friction and wear diagnostic instrumentation, and for engineering tribological surfaces.

Other ECUT funding requested in the FY 1989 budget--$0.2 million-- will be used to continue to assess the status of foreign technologies related to energy conservation and to compare it with the status of U.S. technologies. The request of $0.4 million is for supporting analyses, such as updating the Conservation Multi-Year Plan, and other necessary analyses and assessments conducted on behalf of multiple sectors of the DOE Conservation program. The FY 1989 budget request for the first time consolidates Conservation program resources for these cross-cutting activities within the Multi-Sector budget request. The request of $0.1 million for capital equipment will be used to provide advanced instrumentation for research in combustion technology.

The FY 1989 budget requests $4.65 million for the Inventions and Innovation Program. The Energy-Related Inventions Program was established by Congress to evaluate the technical merits of energy-related inventions submitted to DOE and to provide technical assistance and grants to further develop promising inventions. The National Bureau of Standards (NBS) conducts evaluations through its Office of Energy-Related Inventions. Promising inventions identified by NBS are directed to DOE which may elect to provide Federal assistance when private sector support is not available. From program inception in 1974 through 1987, approximately 24,000 disclosed inventions have been evaluated by NBS. Based on NBS recommendations, 280 inventors have been awarded grants totaling $20.2 million. Of these, at least 73 have entered the marketplace, generating estimated cumulative sales of $220 million and directly creating more than 495 jobs. In FY 1989, the requested funding will support the analysis of approximately 1,000 inventions, and provide financial support for approximately 35 of the most promising inventions. During FY 1989, DOE will continue to work one-on-one with inventors to provide commercialization planning assistance and will conduct group workshops which we have found to be very helpful to inventors in dealing with the various aspects of bringing these technologies to the marketplace.

In FY 1989, the Inventions Program will continue to identify and evaluate the activities of existing local, state, and regional programs which are working directly with inventors and determine the extent and success of efforts being conducted by the private and non-Federal public sector to foster technological innovation. In addition, the effort will establish procedures with states that have innovation support programs to permit the exchange of information and provide for shared support of selected inventions. Beginning in FY 1989 these activities are funded as part of the Technology Assessment and Transfer budget element.

Over the past six years the Innovative Concepts Program has provided seed money to conduct preliminary energy and economic assessments of innovative approaches to saving energy in the area of building materials, industrial processes, and separations. Awards of approximately $15,000 were made to each of 32 contractors selected from responses to RFPs on these targeted topics. In FY 1989, the Innovative Concepts Program will continue to conduct limited tracking of these contractors in order to determine how many received follow-on funding, how many new businesses were started, how many patents were issued as a result of funding by this program, and whether the approach that we developed is being used as a model at national laboratories to encourage innovation and creative solutions to energy conservation problems. An analysis will be completed of inventors who hold nine or more patents in three or more fields. The purpose of the study will be to determine how to encourage participation by these prolific, versatile inventors in DOE's Inventions and Innovations Programs.

In 1983, the Congress appropriated funds to establish the National Appropriate Technology Assistance Service, the third Multi-Sector program, to disseminate information on conservation and renewable energy technologies and to give expert advice and guidance in using them effectively. NATAS was formally established in FY 1984, and to date has received over 28,000 requests for information and assistance. The FY 1989 Budget Request contains $0.6 million for NATAS for continuation of information and technical assistance to individuals and energy-related businesses.

Prior to the FY 1989 budget request Technology Assessment and Transfer activities were incorporated in the requests for the ECUT and Inventions programs. In FY 1989, $0.732 million is identified to conduct the monitoring of inventors supported by the Energy-Related Inventions Program, to provide technical and analytical support for management of the ECUT and Inventions programs, as well as to support the Inventions program activities with inventor organizations earlier described.

## INDUSTRY

The FY 1989 budget request for the Office of Industrial Programs is $16.452 million. These funds will be used to carry out work in generic research and development in four subprograms: Waste Energy Reduction, Industrial Process Efficiency, Industrial Cogeneration, and Implementation and Deployment. The goal of these activities is to encourage improved energy efficiency in industry, which accounts for approximately 36 percent of total U.S. energy consumption, and to provide technologies which offer industry a choice of fuel options. The Department's activities in the industrial area consist of a comprehensive program of carefully targeted technological research and development, combined with technology transfer and other implementation efforts. The R&D activities focus on selected high-risk and high-payoff projects which are not likely to be pursued by the private sector alone. However, most of the R&D is carried out by private companies and institutions operating under cost-shared contracts or cooperative agreements with the Department of Energy.

The Waste Energy Reduction subprogram supports research and development on improved combustion efficiency for industrial furnaces, boilers, and process heaters through oxygen enrichment, improved burner designs, and sophisticated combustion controls. The subprogram also supports R&D on waste heat recovery by development of industrial heat pumps, high temperature recuperators, and ceramic materials for heat exchangers; and research into industrial waste materials recovery and utilization. An example of this research is the development of a pure low cost silicon carbide powder for making heat exchanger components to reduce the cost and improve the reliability of high temperature recuperators. An offshoot of this work was the development of non-destructive evaluation techniques to determine the integrity of fabricated ceramic parts which are placed in high temperature service. A private company which worked with INEL under a DOE contract now offers this inspection service to ceramic part fabricators. In FY 1989, $6.5 million is requested for this subprogram to continue these kinds of activities. In addition to the continuation of ceramic material development, particularly with reinforced fiber materials, efforts will be continued on advanced concepts for heat exchangers, new types of chemical heat pumps for industrial process applications, and the advancement of technologies to utilize wastes through the use of chemical and biotechnology processes.

The Industrial Process Efficiency subprogram includes R&D for advanced sensors and control systems; advanced separation systems; development of electrode materials; and testing for process electrolysis. Significant progress is being made in several of these areas and continuation is planned for FY 1989. The development of stable anodes and cathodes for the electrolytic production of aluminum offers great promise in reducing the electrical power requirements for the process and the effort is now being scaled up to a 6,000 ampere pilot cell. If successful, the process will be further scaled to a full size aluminum production cell. The request also includes research and development of new on-line industrial sensors for improved control of a multitude of industrial processes, advanced low energy separation processes using techniques such as membranes, electroacoustic dewatering, continuous liquid chromatography, impulse drying of wet web materials such as paper, and freeze separations. All of these efforts offer excellent opportunities to reduce the energy consumption in basic industrial processes. Funding of $6.1 million is requested for this subprogram.

No funds are being requested for the Steel Initiative in the FY 1989 budget request because $9.3 million is available for new project efforts. The magnetic levitation work that was underway at the Argonne National Laboratory was terminated after the Steel Industry decided not to support further development. A project for the development of superplastic steel is presently being negotiated with Lawrence Livermore National Laboratory. This project offers the possibility of producing net-shape components with large monetary and energy savings, because machining, joining, and special heat treating procedures could be eliminated.

The Industrial Cogeneration subprogram focuses on research for cogeneration technologies, such as topping cycles, bottoming cycles and the direct conversion of thermal to electrical energy which can be part of either a topping or a bottoming cycle. This program has been very successful in promoting cogeneration technologies which utilize alternative fuels. For example, the development of a coal-water slurry fired slow speed diesel was successfully completed under this program. The program overcame the difficulties of fuel handling and injection and obtained sustained running of the test engine with very low emissions. The IP research will continue on the indirect-fired Brayton system, the high temperature steam turbine system and the alkali (sodium) heat engine. In FY 1989, $0.8 million is requested to continue the sodium heat engine research to upgrade the design of a 1,000 watt test unit built to industrial specifications.

In addition to its research and development efforts, the transfer of technology to industry remains a principal objective of DOE's industrial conservation program. Examples of recent technology transfer efforts include workshops on $CO_2$ recovery and separation technologies, as well as preparation of technology transfer documents on ceramic research, steel industry research and development, and sensor work. Economics is the main incentive that industries have for adopting more energy-efficient technologies, therefore, the technology transfer effort is designed to focus attention on the economic benefits associated with specific technologies. Trade associations are typically involved in industrial technology transfer efforts, helping to multiply the effects of the Department's own efforts to match technology with potential users. In FY 1989, $1.462 million is requested for this subprogram. Work will focus on workshops, seminars, and technical symposia and the development of written materials focusing on technologies developed with DOE assistance. This budget category will now include funding for technical evaluation, analysis, and planning support for the total program. This was formerly included in the Waste Energy Reduction Subprogram.

The technologies being developed by the Office of Industrial Programs, if successfully brought into production, can provide U.S. industry with important improvements in productivity and help to regain technical leadership positions vital to our success in world markets.

## TRANSPORTATION

The FY 1989 budget request for the Transportation program is $28.4 million. This will continue R&D in five major program areas: Vehicle Propulsion; Alternative Fuels Utilization; Electric and Hybrid Vehicles; Advanced Materials Development; and Technology Assessment and Transfer. The overall objective of these programs is to support long-term, high-risk, but potentially high-payoff R&D on promising transportation energy conservation technologies that are unlikely to be undertaken by the private sector alone.

The transportation sector uses a quarter of all energy in the United States and over 63 percent of all petroleum. The goal of the transportation conservation program is to improve the efficiency with which the sector uses petroleum and to enhance the flexibility of fuel use options in transportation related technologies. This goal is underscored by the fact that such technologies have potentially significant leverage on the U.S. and world oil situation. Reductions in U.S. transportation oil use can enhance energy security, reduce oil imports and related trade payments to foreign countries, and enhance economic growth. These programs provide the technology base necessary to support private sector efforts to develop technologies which are either more efficient or serve as alternatives to those based exclusively on petroleum.

In FY 1989, $6.9 million is requested for the Vehicle Propulsion R&D program which supports research and development of high efficiency and advanced heat engine technologies. This area includes R&D on advanced engine concepts, including the automotive gas turbine and the heavy duty adiabatic (low heat rejection) diesel engines. The objectives for both engines are to achieve at least a 30 percent improvement in fuel efficiency over conventional current production heat engines, meet or exceed established requirements for regulated emission levels, and operate satisfactorily on a variety of fuels. Funds will be used to develop and evaluate high temperature structural ceramic components for automotive gas turbine engines and to conduct research on temperature combustion and emissions for adiabatic diesel engines.

In FY 1989, $1.6 million is requested for the Alternative Fuels Utilization program which fosters the use of nonpetroleum-based transportation fuels by establishing a technology data base for utilization of synthetic, biomass-derived, and gaseous fuels in both contemporary and advanced heat engines. These funds will be used to investigate performance, emissions, and wear with advanced and conventional engines using synthetic fuels; operate a synthetic test fuels facility; investigate basic combustion phenomena to existing engines using minimally upgraded syncrudes; and collect and analyze methanol fuel use data from the Federal fleet.

In FY 1989, $5.6 million is requested for the Electric and Hybrid Vehicle program which addresses the need for improved range, reliability, cost, and performance of electric and hybrid vehicles, giving priority to accelerating technologies to a level suitable for private sector decisions to produce specific-purpose vehicles. These funds will be used to continue the development of sodium-sulfur, zinc-bromine, and lithium-metal sulfide batteries to prove the capability of full battery subsystems to function properly in a vehicle including typical environmental, shock, and vibration conditions, and realistic electric vehicle driving profiles. Funds will also be used to complete the dual-shaft a.c. propulsion system, which includes the development and vehicle integration of the nickel-iron battery technology, and to test and evaluate batteries and powertrain technologies.

In FY 1989, $9.9 million is requested for the Advanced Materials Development program. This area addresses the need to develop an industrial technology base in structural ceramics, ceramic composites, and coatings capable of providing reliable and cost-effective components for high temperature, efficient transportation propulsion systems while eliminating requirements for scarce strategic materials. The funds will be used to continue research projects in materials and processing, e.g., low expansion ceramics, ceramic coatings, joining of ceramics and advanced processing of reliable monolithic ceramics; projects in design methods, such as characterization of contact stress coatings and modeling of brittle fracture; and projects in data base and life prediction, including development of tensile strength test methods, and characterization of time-dependent strength properties. To support the advanced materials work conducted under this and other research programs, a user-oriented High Temperature Materials Laboratory has been constructed at the Oak Ridge National Laboratory. Two million dollars are requested to support the scientific staff dedicated to the Laboratory's user facilities and to building maintenance and operations.

In FY 1989, $1.0 million is requested for Technology Assessment and Transfer. This program centralizes cross-cutting functions such as the identification, monitoring, review, and assessment of related industry and market trends; transfer of information on technologies developed; publication of statistical compendiums; and management and planning support. The funds will be used to collect, analyze, and present transportation and energy data including market conditions for fuel efficient technologies; provide consistent baseline projections of the demand for transportation energy by mode for use by program managers in program planning and monitoring; and conduct vehicle propulsion technology assessment and transfer activities.

We are requesting $1.4 million for Program Direction. This funding will provide salaries, benefits, and travel for a staff of 22 FTEs to manage the Transportation programs.

## STATE AND LOCAL ASSISTANCE PROGRAMS

Program direction funds of $8.6 million are requested for the Office of State and Local Assistance Programs (OSLAP) to provide for program management of prior year Federal grants and oversight of Exxon and Stripper Well overcharge funds distributed to the States. OSLAP's new automated financial and programmatic tracking systems will increase the efficiency of monitoring and reporting the status of the projects. Program direction funds will be used also for contractor support for analysis, evaluation, and technical assistance. Our request will cover salaries and expenses for 125 FTEs at Department of Energy headquarters and field offices.

As a result of Court decisions in the Exxon, Stripper Well, and other oil overcharge cases, the States have received $3.5 billion for use mainly in five Federal energy grant programs--the four State and Local Assistance Programs in the Department of Energy and the Low-Income Home Energy Assistance Program in the Department of Health and Human Services. This large disbursement was a substantial increase over annual appropriated fund levels and to date the States have allocated less than half of their total receipts. States could fund energy conservation grant programs at the 1988 inacted program level for fourteen years with these funds if they so choose. Future overcharge recoveries to be returned to the States are estimated to be $840 million. Therefore no DOE grant funds are requested in the FY 89 budget.

Our goal has been to enable State and local governments to develop more non-Federal funding for their energy programs. To that end, our efforts have focused increasingly on identifying and establishing private sector sources of funds and on developing mutually beneficial working relationships between States and other groups that will help them continue and expand their most successful and highest priority activities. In recent years, energy partnerships have been developed and opportunities for shared savings and income-generating projects have been demonstrated and put into practice. There has been a concerted effort to remove institutional barriers to increased energy efficiency and to encourage and facilitate use of advanced conservation technologies.

## CONCLUSION

The programs presented for your review today show enormous potential for the future. Collectively, their potential applications are expected to ultimately make them highly attractive candidates for private sector development and deployment. These technologies promise increasing competition within the energy marketplace.

The programs represent a solid commitment to the continuing development of these technologies. We are confident that our proposals will increase understanding of the potential for virtually all of the most promising conservation technologies and will substantially contribute to the base of technical information required for informed decision making by industry and consumers. This is a budget which I believe seriously recognizes today's fiscal responsibilities, as well as tomorrow's anticipated needs.

Thank you for the opportunity to present our budget request.

Attachment

## CONSERVATION SUCCESSES

I would like to mention some of the major accomplishments achieved during Fiscal 1987 in the Conservation program. We are pleased to be able to identify certain accomplishments that can contribute to manufacturing productivity and enhance the international competitiveness of our domestic industries.

In the Multi-Sector program, the race for commercial exploitation of the first truly ductile ordered intermetallic alloy, nickel aluminide, for high temperature applications took a step forward with the recent announcement by Oak Ridge National Laboratory that it has licensed the technology to Armco Inc., one of the largest steelmakers in the United States. The unusual property of this alloy is increasing strength at higher temperatures, rather than declining strength as in conventional alloys.

The Energy-Related Inventions Program provided assistance to an inventor who designed a new packing ring to reduce leakage in steam turbines. The ring is designed to provide a tighter seal during operations and improve overall turbine efficiency by one percent: electric utilities could save up to $200 million annually in generating costs by using this new packing ring.

In the Industrial Programs, in cooperation with the private sector, a number of new processes have been developed. In cooperation with Construction Technology Labs/Portlant Cement Association, a more energy-efficient grinding process which increases cement particle breakage efficiencies has been developed. The greater control of particle sizes results in direct and indirect energy savings of up to 30% over conventional cement production and utilization practices.

A Brayton cycle heat pump, designed to recover volatile organic solvents from waste vapors, was developed and installed at a 3M magnetic tape production facility in Minnesota. The unit has just started operation and is expected to save 38 billion Btu/year with an estimated value of $500,000. A second unit, of a different configuration based on the same design, has been installed by 3M in another plant.

In another area, significant progress has been made in developing a new technology called Impulse Drying. Designed for paper machine use, it works by bringing wet paper into contact with a very hot metal roll, typically at 400 to 700 degrees F, while maintaining high pressure on the sheet. Laboratory tests have shown that between 200 and 1000 Btus are required to remove each pound of water from liner board. This compares with the 1600 to 1800 Btus per pound required using conventional cylinder drying. It is projected that, when commercialized, impulse drying will save 0.2 quad of energy annually, or a tenth of the total used by the paper industry.

In the Buildings and Community Systems program, construction of the DOE Roof Research Center at the Oak Ridge National Laboratory has been completed. The Large Scale Climate Simulator is undergoing calibration and will be ready for full research capability in 1988. The unique capabilities of the center are expected to improve energy efficient roofing design, address problems faced by the roofing industry, and help the roofing industry move toward modern technology and new materials.

A new technology that has significant potential in replacing chlorofluorocarbon refrigerants in refrigeration applications has been developed. An experimental breadboard apparatus utilizing large counterflow heat exchangers and a nonazeotropic refrigerant mixture produced energy efficiency improvements of 32 percent. These improvements were measured under a typical cooling operation of a heat pump.

The National Bureau of Standards, with support from the Buildings and Community Systems program, has completed the Calibrated Hot Box facility which has been used to develop a recommended ASTM test procedure for the dynamic thermal testing of walls. This will facilitate the prediction of actual performance of advanced complex wall systems and will help establish a strong technology base in an area where there is strong Japanese and European competition.

In the Transportation program, the formal inauguration of the High Temperature Materials Laboratory as a User Center occurred in December 1987 with the first meeting of the User Advisory Committee. The Committee has been organized to review user proposals for nonproprietary research and consists of two representatives from industry, one from the university community, one from DOE, and two from the Oak Ridge National Laboratory. We hope that this facility will help keep American industry at the lead in this critical area.

An inexpensive device for the management of combustible gases emitted from aqueous batteries has been developed by Johnson Controls under contract to DOE. The device prevents the battery case from rupturing in the event of an ignition of the gases within the cell during charging or operation of an electric vehicle. The device was successfully demonstrated in nickel-iron battery modules during recent tests. The device is scheduled for incorporation in the final Eaton dual-shaft electric propulsion system van battery packs. This device improves the safety characterictics of electric vehicles.

## BIOGRAPHY OF DONNA R. FITZPATRICK

Donna R. Fitzpatrick was sworn in as Assistant Secretary for Conservation and Renewable Energy, U.S. Department of Energy in December 1985. She had served as Acting Assistant Secretary since March 1985, and as the Principal Deputy Assistant Secretary since January 1984.

In this position her responsibilities include management of research and development programs in energy efficiency and alternative fuels for industry, buildings, and vehicles. The programs in renewable energy resources involve research in active and passive solar, photovoltaic, wind, ocean thermal, geothermal, and biomass technologies. In addition, she administers federal grant programs for low-income home weatherization and energy efficiency improvements in schools and hospitals, and coordinates management of three of the five federal power marketing administrations.

In 1983, Miss Fitzpatrick served on a consultant team for the Secretary of Energy to conduct a general review of the Department's conservation and renewable energy programs, focusing on policy, program goals and priorities, budget levels, and new initiatives. In 1980, she served the Office of the President-elect as a member of the Transition Team for the National Science Foundation, reviewing national policy in basic science research, project efficiency, funding, and proposed legislation.

In her law practice, first with the Washington, D.C., firm of O'Connor and Hannan and then as a sole practitioner, Miss Fitzpatrick worked extensively on real estate development, property and tax law, business organization, and civil litigation, including administrative law and contracting issues.

Miss Fitzpatrick received a Bachelor's degree in physics cum laude from the American University in 1972. After teaching high school chemistry and mathematics, she entered law school and graduated from the National Law Center of George Washington University in 1980.

## MISS FITZPATRICK'S BACKGROUND

Senator BUMPERS. Madame Secretary, how long have you been in this job?

Miss FITZPATRICK. About 4 years.

Senator BUMPERS. What is your background?

Miss FITZPATRICK. Physics and law.

Senator BUMPERS. Where?

Miss FITZPATRICK. Here in Washington, I went to American University and got a physics degree and went to George Washington University for a law degree and then practiced law here in Washington.

I also taught high school for 4 years.

Senator BUMPERS. That's probably the most important thing you ever did.

Miss FITZPATRICK. I learned a lot. I probably learned more than my students.

Senator BUMPERS. Well, I do a lot of speaking to high school groups and I do find that they have a tendency to hone your thoughts about things.

Miss FITZPATRICK. They teach you to think on your feet, I think.

Senator BUMPERS. Yes; so you came out of the law practice here in Washington into this job.

Is that correct?

Miss FITZPATRICK. That's right.

Senator BUMPERS. You also have solar and biomass under your jurisdiction, do you not?

Miss FITZPATRICK. Yes; I do.

Senator BUMPERS. Of course, that's not part of this subcommittee's concerns. But you do have that.

Miss FITZPATRICK. Yes, sir.

Senator BUMPERS. Madame Secretary, we'll make this rather informal. Staff has prepared a lot of questions and I haven't had a chance to review all of them. But I do want to start off by just saying, obviously, we will appropriate more money for these programs than you're requesting, as is our custom.

Having said that, I might say that we have over the past 7 years, believe it or not, Congress has actually appropriated totally $26 billion less than the President has requested. That's not to suggest that there isn't plenty of blame to go around for the deficits, but it certainly has not been unilateral actions on the part of the Congress that have caused the deficits.

## CONSERVATION FUNDING LEVELS

To return to conservation, in addition to the reductions in the grant programs, conservation research would be reduced under your proposal, or your request here, from $156 million to $86 million.

Now, that's a 45-percent reduction. Would you agree with me that the fastest way and, quite frankly, the cheapest way, to break some of our dependence on foreign oil is through conservation?

You've heard the old saw, the cheapest oil is the oil you don't use.

Miss FITZPATRICK. That, up to a point, is correct. That's true.

Senator BUMPERS. And you are aware that oil imports are up 20 percent over the past 2 years.

Miss FITZPATRICK. Yes, sir.

Senator BUMPERS. And if you read a Wall Street Journal article about last Thursday, you know that oil production is down by 200,000 barrels a day, despite some increased activity, at least in Texas, Louisiana, and Oklahoma.

Does that really make any sense when you consider the trade deficits and how ominous they are, and they are, indeed, ominous. To suggest that we can export our way out of the trade deficit may be right. I don't know whether we can do it or not. I suspect we can't. But I'll tell you, we can make a big dent in our trade deficits by a fairly dramatic and massive conservation effort in this country.

Do you agree with that?

Miss FITZPATRICK. We could certainly improve the productivity and the competitiveness of American industry by reducing their needs for energy. That's why we have an industrial program and try to support it.

So I agree that there are gains to be made.

Senator BUMPERS. Conversely, the more energy we use, the more likely the price is to go up, which makes us less competitive.

Is that a fair statement, too?

Miss FITZPATRICK. That's correct.

Senator BUMPERS. And so why, then, are we being niggardly about our conservation budget?

Miss FITZPATRICK. Mr. Chairman——

Senator BUMPERS. Because you sent it over to OMB and that's the way it came back? [Laughter.]

Miss FITZPATRICK. I get my numbers from OMB the way the Appropriations Committee gets their numbers from the Budget Committee, Mr. Chairman. Not for a minute have I ever pretended that there isn't more productive work that we could do if we had the budget.

But we're competing in the Federal budget along with everybody else and this is what we have to work with.

### HIGHER FUNDING LEVELS

Senator BUMPERS. It's my understanding, and I assume that as a Presidential appointee, your days are numbered, anyway, so you shouldn't have any hesitancy about answering this question— [Laughter.]

Miss FITZPATRICK. What can they do? They can fire me, I guess. [Laughter.]

Senator BUMPERS. That's right. And they're not going to do that. You look like a fine, competent administrator to me. [Laughter.]

As I understand it, you sent a request for conservation over to OMB for $190 million. Is that not true?

Miss FITZPATRICK. No, sir.

Senator BUMPERS. Was this in the Department? Your original budget request, was that not for $190 million?

Miss FITZPATRICK. No. sir; early on in the budget process, we ask everybody to come up with everything they might possibly like to do. I think that number—I've never heard a $190 million figure. Somebody told me 1 month or so ago that the total for everything that all the program offices thought they might like to do was in the $170 million range.

But that's before it gets any kind of review. That's before even the program offices themselves sit down and prioritize and talk to industry and say what are the things that are important to you and that kind of thing.

So that is a very raw number and it really isn't useful for very much.

Senator BUMPERS. What would you have done with $190 million if you had it.

Miss FITZPATRICK. Thrown a party, I guess.

That's a lot of money, Mr. Chairman. That's more than we've had in a long time.

I'm not sure that that much could be productively spent, or on high enough priority projects to justify it. I don't think we could use that.

Senator BUMPERS. Has your Department done any studies to try to correlate specific conservation programs to how much oil we can avoid importing?

In other words, if we were, for example, and this is outside your Department—not totally because you do do engine research.

Miss FITZPATRICK. Yes.

## CAFE STANDARDS

Senator BUMPERS. For example, if we increased the fleet mileage standards of our automobile fleet by a couple of miles per gallon, how much oil would that avoid importing?

Miss FITZPATRICK. Just increasing the standards from where they are now, which is 26 miles per gallon, probably would have virtually no effect because the cars being sold in America today, the average mileage is now over 28 miles per gallon.

In other words, the CAFE standard is fairly irrelevant to what people are actually buying. So just increasing it, say, to 27½ or 28 miles per gallon, I think——

Senator BUMPERS. Are you telling me that the automobile industry today, that the fleet average that they are producing and selling is 28 miles per gallon?

Miss FITZPATRICK. It's over 28 miles per gallon, that's correct.

Senator BUMPERS. That's the first time I've heard that.

Miss FITZPATRICK. Well, in 1986, I think it was at about 27.9 miles per gallon. This is new cars actually sold in the United States. The average was, I think, 27.9 miles per gallon. In 1987, it went up over 28 miles per gallon.

So we project for this model year, it will be about 28.4 miles per gallon.

Senator BUMPERS. Do you think we should take any additional action in the Congress on CAFE standards?

Miss FITZPATRICK. Repeal them.

Senator BUMPERS. You're really a hard-liner, aren't you?

Miss FITZPATRICK. Yes, sir. [Laughter.]

Because, as I said, I think they've outlived their usefulness for increasing the actual new car mileage. People are buying cars that are efficient. And what they're doing——

Senator BUMPERS. Are you suggesting that the CAFE standards we originally adopted back in the late 1970's had nothing to do with what's happened in this country?

Miss FITZPATRICK. No; I'm saying now, today, they are having very little, if anything, to do with the cars——

Senator BUMPERS. But wouldn't you have said the same thing back then, don't do it?

Miss FITZPATRICK. Possibly not, but this is today. What they're doing is hurting some of the American manufacturers and their ability to compete.

Senator BUMPERS. OK, lets use another illustration.

### WEATHERIZATION SAVINGS

Have you done any research on energy savings and the avoidance of oil imports resulting from the weatherization program?

Miss FITZPATRICK. Well, it actually turns out not to be very simple to project what energy savings will actually be.

For example, in the weatherization area, we can do an energy audit on a home and say we can make certain improvements such as installing insulation, caulking, and weatherstripping around windows and doors and putting in storm windows. And we ought to be able to reduce the energy consumption of the house or increase its efficiency by, say, 20 or 25 percent.

Now, when you do that, in fact, the utility bills don't go down 20 or 25 percent. And the reason is that people take some of that savings and they buy more comfort—they turn up their thermostats, they use the air-conditioning more.

You don't get a translation of the increased energy efficiency of the house directly into decreased energy use.

So it turns out not to be a simple calculation to make. As far as oil savings are concerned, in that area, you get very little in the way of oil savings, unless the house happens to be oil-fired, have an oil-fired burner. Most houses today, the new houses have electric heating or heat pumps and very little of our electricity comes from oil, less than 5 percent.

So a lot of what you hear in suggestions for energy saving, that very often by proponents get translated immediately into oil savings are really not correct. They're talking about saving electricity, for example, with appliance efficiency standards. You are not talking about saving oil.

Even though that claim is made, it's not correct.

### APPLIANCE STANDARDS

Senator BUMPERS. What are you saving with appliance efficiency standards?

Miss FITZPATRICK. Probably not very much because the efficiency standards that were passed last year are just about the same as what industry had already begun tooling up to produce. That's why industry accepted that.

Senator BUMPERS. So, again, you wouldn't have done it.

Miss FITZPATRICK. I wouldn't have done it, no.

Senator BUMPERS. Are you pretty much of the mind to let the marketplace decide on these things?

Miss FITZPATRICK. I think that it's hard to tell the marketplace what to do. I think our experience is that Americans are going to do what you can persuade them to do and not what you try to force them to do. We tried 55 miles per hour and we had wholesale disregard for it. We tried telling them about a seatbelt interlock on ignition systems because it was good for us and we had a cottage industry of disconnecting them.

### CAFE STANDARDS

Senator BUMPERS. So back to the CAFE standards. You don't think we accomplished anything back in 1978?

Miss FITZPATRICK. We very possibly accomplished something in the late 1970's and early 1980's. I think probably the American automobile industry needed to be hit on the head.

Senator BUMPERS. And they squealed like a pig under a gate when we passed that.

Miss FITZPATRICK. That's right. I'm sure they did.

Senator BUMPERS. But I'm absolutely convinced they wouldn't have done it—I disagree with you on that. They simply would not have done it if we hadn't mandated it.

Miss FITZPATRICK. They would have gone out of business. We would have efficient cars on the road, but they would be made in Japan and Germany and anyplace else.

Senator BUMPERS. I agree with you. We saved them from themselves.

Miss FITZPATRICK. That's right. What they probably did was save the American automobile industry, but it had very little to do with how much oil we consume.

### ELECTRICAL GENERATION CAPACITY

Senator BUMPERS. On a slightly separate subject, but pursuing what you were talking about a while ago about how people maybe turn up the thermostats and enjoy a little more comfort and so on, there's also another side to that. And that is that electricity demand did not increase at the rates projected in the seventies and we built a tremendous overcapacity of electrical energy in many areas of this country. A lot of people, like the people of Arkansas, got trapped having to pay for that capacity although they don't use it.

Miss FITZPATRICK. Yes.

Senator BUMPERS. And I say Arkansas because I'm painfully aware of what's happened to us down there. But that's true in other States, too.

Miss FITZPATRICK. On a regional basis, that's true. And yet, other regions are facing serious shortcomings, shortfalls, very quickly. New England, for example.

Senator BUMPERS. Well, if you know anybody that we can give some power to, by all means, let us know because we've got plenty to peddle. [Laughter.]

Miss FITZPATRICK. That's going to come back and bite us, though, because we have an overcapacity nationally and have had for some years. And yet, all projections are that within the next 10 years, we're going to have some severe undercapacity. And yet the lead times for building new capacity are in the range of 10 years or so.

Senator BUMPERS. If we'd go all out on these conservation programs, that might not be true.

Miss FITZPATRICK. And renewables.

### ADDITIONAL CONSERVATION FUNDING

Senator BUMPERS. And renewables. I agree.

Well, apparently, the departmental request from all of your underlings totaled $190 million, did it not?

Miss FITZPATRICK. No; that's not really a request. That's not even a number that bears the scrutiny of the office directors and deputies. It's not even a number that gets to me, let alone to the Secretary.

Senator BUMPERS. Let me show you this [indicating]. Look at that and tell me what that is.

Miss FITZPATRICK. OK.

[Pause.]

Senator BUMPERS. I have underlined in red the $190 million. What does that figure represent?

Miss FITZPATRICK. It includes $17.5 million for State and local programs, so the research part of it is $172 million. That's the number that I've heard before.

Senator BUMPERS. Well, what would you do with $172 million? [Laughter.]

[The information follows:]

## ENERGY CONSERVATION PROGRAM PRIORITIES

During the Department of Energy's FY 1989 Internal Review Budget (IRB) process, the Assistant Secretary developed a listing of highest priority items over and above the requested target level. These items would have been requested had additional funds been available. The following provides a continuation beyond the Assistant Secretary's priority list for Conservation Research and Development Activities. The remaining items represent the highest level at which the programs considered additional activities for possible funding. This is the IRB Program Planning Level.

The entire IRB was based on an FY 1988 President's request of $86,090,000 for Energy Conservation programs. Since that time, the Congress added funds for a total FY 1988 level of $368,297,000. These increases may result in minor changes to the relative importance of these items.

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 1 | State & Local | $4,045 | Program Direction - Salaries & Related Expenses |
| 2 | Transportation | 850 | Electric and Hybrid Vehicle R&D - Electric Vehicle Propulsion Systems - Single Shaft |
| 3 | Transportation | 680 | Electric and Hybrid Vehicle R&D - Electric Vehicle Battery R&D - Other - Lead Acid |
| 4 | Transportation | 150 | Electric and Hybrid Vehicle R&D - National Laboratory Management Support |
| 5 | Transportation | 370 | Alternative Fuels Utilization - Synthetic Fuels |
| 6 | Transportation | 1,500 | Electric and Hybrid Vehicle R&D - Test and Evaluation - In-Vehicle Dynometer Testing |
| 7 | Transportation | 600 | Technology Assessment and Transfer - Technology and Information Transfer - Other |
| 8 | BCS | 900 | Community Energy Systems - District Heating and Cooling - DHC Research and Development |
| 9 | BCS | 600 | Technology and Consumer Products - Combustion and Thermal Distribution |
| 10 | BCS | 300 | Technology and Consumer Products - Lighting Impacts Research |
| 11 | BCS | 50 | Technology and Consumer Products - Building Lighting Applications Research |
| 12 | BCS | 500 | Technology and Consumer Products - Lighting Equipment Research |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 13 | BCS | 800 | Technology and Consumer Products - Advanced Refrigeration Systems |
| 14 | BCS | 1,500 | Technology and Consumer Products - Thermally Activated Heat Pumps - Stirling Engine Technology |
| 15 | BCS | 600 | Technology and Consumer Products - Thermally Activated Heat Pumps - I.C. Engine Technology |
| 16 | BCS | 650 | Building Systems - Building Subsystems - Fenestration Research |
| 17 | BCS | 100 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning - IEA Support |
| 18 | BCS | 500 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning - Planning and Analysis |
| 19 | Industry | 1,300 | Waste Energy Reduction - National Laboratory Support |
| 20 | Industry | 800 | Waste Energy Reduction - Advanced High Temperature Recuperators |
| 21 | Industry | 700 | Waste Energy Reduction - Improved Combustion Efficiency |
| 22 | Industry | 700 | Industrial Process Efficiency - Sensors and Controls |
| 23 | Industry | 700 | Waste Energy Reduction - Advanced Industrial Heat Pumps |
| 24 | BCS | 350 | Federal Energy Management Program - Federal Planning, Coordination Reporting and Evaluation |
| 25 | BCS | 650 | Federal Energy Management Program - Program Technical Guidance and Assistance |
| 26 | Transportation | 5,000 | Vehicle Propulsion R&D - Automotive Gas Turbine |
| 27 | Multi-Sector | 500 | ECUT - CE Program Internat'l Research Monitoring |
| 28 | Multi-Sector | 200 | Inventions and Innovations Program - Inventor Assistance |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 29 | Multi-Sector | 150 | Inventions and Innovations Program - Innovative Concepts |
| 30 | State & Local | 2,52 | Program Direction - Program Planning |
| 31 | Multi-Sector | 900 | NATAS |
|  | total | 29,170 | Assistant Secretary's Priority Listing |
| 32 | Policy & Mgmt. | 276 | Program Direction Monitoring |
| 33 | Policy & Mgmt. | 2 | Program Direction |
| 34 | Transportation | 8 | Program Direction |
| 35 | Transportation | 885 | Program Direction |
| 36 | Transportation | 1,800 | Technology Assessment and Transfer - Technology and Information Transfer - Other |
| 37 | State & Local | 2,500 | Program Direction - Technology Transfer |
| 38 | Transportation | 200 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning |
| 39 | Transportation | 500 | Electric and Hybrid Vehicle R&D - Test and Evaluation - Data Analysis and Site Operations |
| 40 | Transportation | 2,000 | Alternative Fuels Utilization - Synthetic Fuels |
| 41 | Transportation | 1,100 | Electric and Hybrid Vehicle R&D - Test and Evaluation - In-Vehicle Dynometer Testing |
| 42 | Transportation | 800 | Electric and Hybrid Vehicle R&D - Test and Evaluation - Data Analysis and Site Operations |
| 43 | Transportation | 700 | Technology Assessment and Transfer - Technology and Information Transfer - Gas Mileage Guide |
| 44 | Transportation | 120 | Electric and Hybrid Vehicle R&D - Electric Vehicle Battery R&D - Other - Lead-Acid |
| 45 | Transportation | 800 | Electric and Hybrid Vehicle R&D - Electric Vehicle Battery R&D - Other - Nickel-Iron |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 46 | Transportation | 1,700 | Electric and Hybrid Vehicle R&D - Electric Vehicle Battery R&D - Other - Fuel Cell Battery |
| 47 | Transportation | 3,000 | Vehicle Propulsion R&D - Heavy Duty Transport (Adiabatic Diesel) |
| 48 | Transportation | 380 | Electric and Hybrid Vehicle R&D - National Laboratory Management Support |
| 49 | Transportation | 1,000 | Electric and Hybrid Vehicle R&D - Electric Vehicle Propulsion Systems - Fuel Cell Hybrid Bus |
| 50 | Transportation | 1,500 | Capital Equipment |
| 51 | Transportation | 500 | Capital Equipment |
| 52 | Multi-Sector | 683 | Program Direction |
| 53 | Multi-Sector | 22 | Program Direction |
| 54 | Multi-Sector | 800 | ECUT - Materials - High Temperature Materials |
| 55 | Multi-Sector | 1,500 | ECUT - Combustion - Engine Combustion Technology |
| 56 | Multi-Sector | 1,375 | ECUT - Tribology - Lubricants |
| 57 | Multi-Sector | 500 | ECUT - Catalysis/Biocatalysis - Bioprocess Engineering |
| 58 | Multi-Sector | 700 | ECUT - Thermal Sciences - Heat and Mass Transfer Research |
| 59 | Multi-Sector | 900 | Capital Equipment |
| 60 | Multi-Sector | 500 | ECUT - Materials - Lightweight Materials |
| 61 | Multi-Sector | 900 | ECUT - Combustion - Continuous Combustion |
| 62 | Multi-Sector | 400 | ECUT - Materials - Materials Processing Technology |
| 63 | Multi-Sector | 200 | ECUT - Tribology - Engineering Tribological Surfaces |
| 64 | Multi-Sector | 200 | ECUT - Materials - Materials-by-Design |
| 65 | Multi-Sector | 800 | ECUT - Thermal Sciences - Thermodynamics and Fluid Systems Research |
| 66 | Multi-Sector | 400 | ECUT - Materials - Biobased Materials |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 67 | Multi-Sector | 1,400 | ECUT - Catalysis/Biocatalysis - Catalysis-by-Design |
| 68 | Multi-Sector | 175 | ECUT - Tribology - Friction and Wear |
| 69 | Multi-Sector | 100 | ECUT - Tribology - Engineering Tribological Surfaces |
| 70 | Multi-Sector | 50 | ECUT - Tribology - Tribological Design Tools |
| 71 | Multi-Sector | 180 | ECUT - Materials - Corrosion - Resistant Materials |
| 72 | Multi-Sector | 50 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning |
| 73 | Multi-Sector | 187 | Technology Assessment and Transfer - Technology and Information Transfer |
| 74 | Industry | 500 | Program Direction |
| 75 | Industry | 10 | Program Direction |
| 76 | Industry | 1,500 | Implementation and Deployment - Energy Analysis and Diagnostic Centers |
| 77 | Industry | 3,700 | Industrial Process Efficiency - Materials Processing |
| 78 | Industry | 3,000 | Industrial Cogeneration - Advanced Topping Cycle Systems |
| 79 | Industry | 3,200 | Industrial Cogeneration - Advanced Topping Cycle Systems |
| 80 | Industry | 1,000 | Industrial Process Efficiency - Separations Research |
| 81 | Industry | 1,000 | Waste Energy Reduction - Liquid/Solid Waste Conversion |
| 82 | Industry | 600 | Waste Energy Reduction - Utilization of Waste Stack Gas |
| 83 | Industry | 600 | Industrial Process Efficiency - Process Electrolysis |
| 84 | Industry | 700 | Implementation and Deployment - Technology and Information Transfer |
| 85 | BCS | 450 | Building Systems - Building Subsystems - Wall and Foundation Research |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 86 | BCS | 500 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning - Planning and Analysis |
| 87 | BCS | 700 | Building Systems - Building Subsystems Interactions - Advanced Residential Technologies |
| 88 | BCS | 884 | Program Direction |
| 89 | BCS | 17 | Program Direction |
| 90 | BCS | 300 | Appliance Standards - Appliance Standards Development |
| 91 | BCS | 300 | Building Systems - Standards and Guidelines |
| 92 | BCS | 700 | Building Systems - Building Subsystems - Indoor Air Quality, Infiltration and Ventilation |
| 93 | BCS | 300 | Building Systems - Building Subsystems Interactions - Building Performance Simulation |
| 94 | BCS | 500 | Community Energy Systems - District Heating and Cooling - DHC Research and Development |
| 95 | BCS | 400 | Technology and Consumer Products - Thermally Activated Heat Pumps - Absorption Technology |
| 96 | BCS | 1,517 | Capital Equipment |
| 97 | BCS | 1,000 | Technology Assessment and Transfer - Technical Evaluation, Analysis and Planning - Least-Cost Utility Planning |
| 98 | BCS | 600 | Technology Assessment and Transfer - Technology and Information Transfer |
| 99 | BCS | 2,500 | Technology Assessment and Transfer - Energy Security and Competitiveness |
| 100 | BCS | 800 | Technology and Consumer Products - Advanced Refrigeration Systems - Advanced Appliance Insulation |
| 101 | BCS | 575 | Building Systems - Building Materials |
| 102 | BCS | 400 | Technology and Consumer Products - Combustion and Thermal Distribution |

| Priority | Program | Funding ($000) | Project |
|---|---|---|---|
| 103 | BCS | 300 | Building Systems - Building Subsystems - Wall and Foundation Research |
| 104 | BCS | 1,100 | Building Systems - Building Subsystems Interactions - Advanced Commercial Building Systems |
| 105 | BCS | 250 | Technology and Consumer Products - Building Lighting Applications Research |
| 106 | BCS | 300 | Building Systems - Building Subsystems - Roof Research |
| 107 | BCS | 500 | Building Systems - Building Energy Retrofit Research - Multi-Family Buildings |
| 108 | BCS | 100 | Building Systems - Building Energy Retrofit Research - Single Family Buildings |
| 109 | BCS | 800 | Building Systems - Building Energy Retrofit Research - Commercial Buildings |
| 110 | BCS | 1,000 | Technology and Consumer Products - Residential Cogeneration |
| 111 | BCS | 350 | Building Systems - Building Subsystems Interactions - Advanced Residential Technologies |
| 112 | BCS | 1,000 | Technology and Consumer Products - Advanced Refrigeration Systems - Chlorofluorocarbons (CFC) Research |
| 113 | BCS | 200 | Community Energy Systems - Community Systems Research |
| 114 | BCS | 400 | Community Energy Systems - District Heating and Cooling - DHC Feasibility Studies |
| 115 | Prior Year Balances | 5,573 | Use of Prior Year Balances |
|  | Total | $101,089 |  |

## HIGH PRIORITY PROGRAMS

Miss FITZPATRICK. I would do everything we're doing. I would do some of the things that are included in the 1988 appropriation. And I would have to sit down and talk to the program offices and see what they included in that and whether any of it is high enough priority to spend money on.

There are some things—not 80 million dollars' worth, which is what this represents, an increment from $86 to $172 million, 80 some million dollars' worth. There are some things I know I would like to do, but not that much.

Senator BUMPERS. What, of the items in there that represent what you say is $172 million, what is the very highest priority item in there that you're not asking for, if you had the $172 million?

Miss FITZPATRICK. I would ask for something in each of the various program areas. I think we need to do more in transportation.

Senator BUMPERS. You don't think one deserves more than anything else? You'd just put some in all those programs?

Miss FITZPATRICK. I would put some in all the programs, yes. In the transportation area, I would do some more work on batteries for electric vehicles; in particular, finishing some work that we're doing on the flow-through lead acid battery.

I would give some more funding to the laboratory we have for evaluation of electric vehicles in Idaho.

I would do some more work on technology assessment for transportation systems.

We need to keep looking at new ideas, new materials, especially, new designs, propulsion systems, both for greater efficiency of petroleum-based fuels and also for alternative fuels and electric vehicles.

I would do work in industrial programs on high-temperature recuperators. This is a major source of lost energy in industry. We need to do better at recovering heat that is now just literally going up the smokestack.

We need to improve the efficiency of industrial processes in our major energy-using industries, like pulp and paper and basic metals.

We need to learn a lot more about ceramics, how to make them and how to use them. Ceramics are going to be a major material in virtually every manufacturing area.

## IMPACT OF CONSERVATION ON TRADE DEFICIT

Senator BUMPERS. While we are on the subject of an expanded energy conservation program, has the Department conducted any studies of the beneficial impacts that an aggressive conservation program could have on our mounting trade deficits?

Miss FITZPATRICK. No; however, it is clear that improvements in energy use efficiency can help improve productivity of U.S. industry and help reduce the need for imported energy. Industry is often discouraged from making the investments needed to improve energy efficiency because of emphasis on short-term profits, relatively low fuel costs, the ability to expense fuel costs as incurred, long depreciation periods for new equipment, and loss of the investment tax credit.

## CERAMICS IN AUTOMOTIVE APPLICATIONS

Senator BUMPERS. Can we use ceramics in automobile engines?

Miss FITZPATRICK. Absolutely. We have two automobile engines that are fully ceramic engines.

Senator BUMPERS. What are they?

Miss FITZPATRICK. They are gas turbine engines, both of them, two-cycle.

Senator BUMPERS. Who makes them?

Miss FITZPATRICK. One of them is made under contract to us by Garrett, which is a subsidiary of Allied Signal.

Senator BUMPERS. Is that the Garrett that's in Phoenix?

Miss FITZPATRICK. Yes, sir; that's where it is.

Senator BUMPERS. They make airplane engines.

Miss FITZPATRICK. That's right, that's where it is. The other one is made by Allison Turbines, which is a subsidiary of General Motors.

Senator BUMPERS. Is that a ceramic?

Miss FITZPATRICK. This is a ceramic. This is silicon carbide. That's a turbine rotor designed to go in the GM engine, the Allison engine.

Senator BUMPERS. Is anybody using ceramic parts commercially?

Miss FITZPATRICK. Yes; some of the ceramics that we have developed in our program have been patented and licensed to Cummins, for example. Norton makes ceramic parts. You can get a Buick Regal that has a ceramic turbo-charger in it.

Senator BUMPERS. What do you get for that turbo-charger?

Miss FITZPATRICK. You get increased efficiency and the ability to operate at higher temperatures. The ceramics are lighter than metals. You get a faster response time on the turbo-charger, which means that you get the effects of the turbo-charger sooner.

Ceramics generally have less friction. They are more resistant to corrosion and wear than metal parts.

But the big difference—one of the big differences and the reasons for the efficiencies is, even in a standard engine, just replacing parts, is that it's lighter. Auto companies are testing using ceramic parts for valve stems, for example, for wrist pins, and just the reduced weight increases the efficiency because they have less weight to push around inside the engine, less work to do.

Senator BUMPERS. Where are these made?

Miss FITZPATRICK. That one is made, I think, by Sohio. I'm not sure.

Senator BUMPERS. Where is the turbo-charger made?

Miss FITZPATRICK. Excuse me. That's a General Electric rotor.

Senator BUMPERS. This?

Miss FITZPATRICK. That's made by General Electric, yes.

Senator BUMPERS. Where's this turbo-charger you're talking about made?

Miss Fitzpatrick. The one I think GM actually installed was supplied by Garrett but made in Japan.

Mr. Streb. Made by Garrett in Japan.

Miss Fitzpatrick. Made by Garrett in Japan, right.

Senator Bumpers. Now, ain't that a boot?

Miss Fitzpatrick. It sure is. [Laughter.]

But I have to say, the U.S. ceramic industry has come a long way just in the last 2 or 3 years. They're now spending—what is it? $150 million? Something like $150 million a year on their own research.

Senator Bumpers. Japan is?

Miss Fitzpatrick. No; we are.

Senator Bumpers. We are?

Miss Fitzpatrick. The U.S. ceramic industry.

Senator Bumpers. Is Japan doing research on ceramics?

Miss Fitzpatrick. They certainly are.

Senator Bumpers. Well, the component that Garrett had made in Japan—is it the rotor for turbo-charger?

Miss Fitzpatrick. Yes; they made a rotor for a turbo-charger. I should have brought one. It's about this big [indicating].

Senator Bumpers. Did the Japanese invent the rotor or did Garrett? Or did we?

Miss Fitzpatrick. It was developed by Garrett to replace what was a metal part.

Senator Bumpers. Did they develop that here or in Japan?

Miss Fitzpatrick. I don't know where they did the design work. It's probably a Kyocera rotor.

## CAFE STANDARDS

Senator Bumpers. I want to go back just before I forget it, and that is on these CAFE standards.

You talk about the national fleet average in this country now is 28 miles per gallon.

Miss Fitzpatrick. For new cars, right.

Senator Bumpers. For all new cars.

Miss Fitzpatrick. Right.

Senator Bumpers. What is the national fleet average?

Miss Fitzpatrick. For——

Senator Bumpers. Old cars and new.

Miss Fitzpatrick. It's about 18 miles per gallon. Yes; it's about 18 now.

Senator Bumpers. Are you including Japanese cars and all imports?

Miss Fitzpatrick. This is cars on the road in the United States.

Senator Bumpers. What is the American manufacturing fleet average, new cars?

Miss Fitzpatrick. That I don't know, but they have to be meeting the 26 or using prior year gains. But there's not much of that left for them.

Senator BUMPERS. Does anybody here on your staff know the answer to that?

Miss FITZPATRICK. For new cars, what is the United States? It has to be about 26.

[The information follows:]

### FUEL ECONOMY FOR NEW DOMESTIC AUTOMOBILES

According to preliminary estimates by the National Highway Traffic Safety Administration of the Department of Transportation, new domestic automobile fuel economy will be 27.1 miles per gallon for model year 1988. This is a rise of 0.4 miles per gallon over the estimated value of 26.7 miles per gallon for model year 1987.

### OFFICE OF MANAGEMENT AND BUDGET MEMORANDUM

Senator BUMPERS. On March 15, 1988, my good friend and yours, OMB Director James Miller, issued a memorandum for Cabinet officers and agency heads. He says that congressional report directives do not have the force of law, which is true. You're a lawyer. You and I both know that.

His memorandum encourages agency heads to divert funds identified for low-priority projects in committee report guidance to other purposes, which the administration believes are of higher priority. This memorandum requires agencies to explain any instances where they intend to follow congressional report language.

Since Congress added $282 million to the energy conservation request for 1988, and because most of these amendments were described in the report rather than in bill language, we are interested here on this subcommittee on how you're going to respond to his letter.

Are there any directives in our committee reports on the 1988 appropriation which you don't intend to carry out?

Miss FITZPATRICK. I can't think of any off the top of my head, Mr. Chairman. If I can answer that for the record, I will.

Senator BUMPERS. So you're going to tell Mr. Miller that as far as you're concerned, our report language has a higher priority than anything the administration has.

Is that right?

Miss FITZPATRICK. If there was money appropriated to do work, we will certainly do it as directed.

Senator BUMPERS. You've been here long enough to know how to answer those questions, haven't you? [Laughter.]

[The information follows:]

### CE POLICY REGARDING APPROPRIATIONS REPORT LANGUAGE

The Department of Energy is implementing the energy conservation programs in a manner which will fully comply with all directives in the appropriations reports.

### REPROGRAMMING GUIDELINES

Senator BUMPERS. Will you provide the committee with an assurance that the Department will follow the subcommittee's reprogramming guidelines with respect to any proposed changes or shifts in funding?

Miss FITZPATRICK. The Department will follow the subcommittee reprogramming guidelines for any proposed change or shift in funding.

### CHLOROFLUOROCARBONS

Senator BUMPERS. Let's go to CFC's. Tell me what you've learned to do with respect to advanced technologies and new material that will mitigate the use of CFC's in energy-related applications.

Miss FITZPATRICK. Well, we have two approaches to that, Mr. Chairman. One is to help industry, as they tell us they need some help, in finding alternatives to CFC's, other working fluids. There is a great deal of work that is going on in industry in this. Obviously, they know that they have to do it.

They have asked us to help them with some of the assessments on how CFC's are used and some of the characterizations of the physical and chemical properties of some of the alternatives that they're considering, and we're doing that and expect to continue to do it.

The other approach is to find alternative refrigeration systems and alternative techniques for making foams, for example.

### CHLOROFLUOROCARBONS

Senator BUMPERS. When will your assessment of mitigation measures be completed?

Miss FITZPATRICK. The Department is not conducting a comprehensive assessment of mitigation measures. The Department is conducting an energy impact study for the major energy-intensive chlorofluorocarbon [CFC] uses, refrigeration, mobile air-conditioning, and insulation. These end uses constitute 40 percent of the total CFC ozone depletion effect. Preliminary results bracket the potential increased energy usage from 1 to over 2 quads yearly for technologies currently available. Emerging technologies, those which require substantial research and development, could reduce energy impacts to 0.2 quad, or even a net energy savings of over 0.5 quad.

Senator BUMPERS. What substitutes for CFC propellants is the Department studying this year and which ones are proposed for study in fiscal year 1989?

Miss FITZPATRICK. CFC propellants in aerosol cans have been banned by the Environmental Protection Agency [EPA] and the Federal Drug Administration [FDA], except for essential uses; this amounts to about 1 percent of all CFC's used in this country. As there are no energy impacts associated with CFC propellants, the Department is not investigating substitutes specifically for CFC propoellants.

Senator BUMPERS. How much will you be spending on this search for substitutes this year and next?

Miss FITZPATRICK. The Department is spending $400,000 in fiscal year 1988 and $150,000 in fiscal year 1989 specifically on research for chlorofluorocarbon substitutes. Further, the Department is conducting ongoing research activities in many areas to develop highly energy efficient technologies which would potentially offset the use of CFC's.

These areas include nonazeotropic refrigerant mixtures, absorption heat pumps, and evacuated insulation.

Senator BUMPERS. Is industry cost sharing your research on substitutes for CFC's used in refrigeration; and if so, would you describe these cost-sharing efforts more fully for the record?

Miss FITZPATRICK. Industry is cost sharing our research on substitutes for CFC's used in refrigeration. For the National Bureau of Standards' [NBS] project to develop property data for the two most promising non-ozone depleting chemicals identified so far, the American Society of Heating, Refrigerating and Air-Conditioning Engineers [ASHRAE] has provided $19,000, or about 15 percent of the total funding. The chemical producers, DuPont and Allied, have provided samples of the new refrigerants at no cost.

Senator BUMPERS. Are other organizations within the Department working on the CFC problem. What are they doing?

Miss FITZPATRICK. Other organizations within the Department are conducting CFC-related research. Within the Office of Energy Research, the Carbon Dioxide Research Division has conducted limited research on non-$CO_2$ greenhouse gases for several years. The Office of Energy Utilization Research has recently initiated basic research of thermophysical and transport properties of nonazeotropic refrigerant mixtures. This research effectively compliments the research done by the Office of Buildings and Community Systems on CFC alternatives. The Office of Transportation Systems has initiated a technical assessment of CFC use in mobile air-conditioning and is investigating the energy impacts of alternative technologies. As these offices are under the jurisdiction of the Office of Conservation, a task group has been formed to coordinate the research activities and to avoid duplicative research efforts.

Senator BUMPERS. Would you provide for the record a table that indicates which agencies are involved in CFC research, what they are doing, and how much each will be spending in fiscal year 1988 and fiscal year 1989.

Miss FITZPATRICK. Two agencies for which the Department has detailed information on CFC research are the Environmental Protection Agency and the National Bureau of Standards. These reserach efforts have been discussed in cooperative planning meetings between the agencies. For fiscal year 1988 the EPA Air and Energy Engineering Research Laboratory has a budget of $400,000 which will be used to search for chemical substitutes for all uses of CFC's and halons, including refrigeration, mobile air-conditioning, insulation, chemical solvents, and fire extinguishants. The EPA Office of Air and Radiation has $150,000, which in part, will be used to cosponsor research at NBS on refrigerant properties and at Oak Ridge National Laboratory [ORNL] for testing substitute refrigerants in household refrigerators. The balance of the EPA research activities will search for non-CFC blowing agents for foam insulation.

For fiscal year 1987, NBS conducted a screening analysis of over 800 industrially important fluids to search for potential chemical substitutes for CFC's. Through Department funding, NBS is experimentally determining the thermophysical properties of R–134a and R–123, two leading substitutes. Also under Department funding, NBS measured a 32-percent improvement in efficiency for one refrigerant mixture over a CFC-based refrigerant on their experimental heat pump apparatus. For fiscal year 1988, NBS will test adanced vapor compression cycles which theoretically could result in energy savings of 40 to 50 percent.

I will provide any additional budget information we have for the record.

[The information follows:]

FEDERAL AGENCIES INVOLVED IN CFC RESEARCH

| Agency | Fiscal year— 1988 actual | Fiscal year— 1989 requested |
|---|---|---|
| Environmental Protection Agency[1] | $550,000 | ([2]) |
| National Bureau of Standards:[3] | | |
| National Bureau of Standards | 150,000 | $150,000 |
| Department of Energy | 125,000 | |
| ASHRAE | 19,000 | |

[1] The EPA research is for new chemicals, foaming processes with lower CFC emissions, and CFC destruction techniques.

[2] Unknown.

[3] The NBS research measures engineering properties of leading refrigerant substitutes, R–134a, R–123, and R–141b.

NON-FEDERAL AGENCIES INVOLVED IN CHLOROFLUROCARBONS

Senator BUMPERS. Can you provide a similar table for non-Federal efforts related to CFC's in the United States?

Miss FITZPATRICK. The Department has coordinated its research efforts with the private sector to better understand industry's research needs and to identify research activities appropriate for Federal involvement for accelerating the introduction of alternative technologies to CFC's into the market place. As a result of these efforts, the Department can provide general information on non-Federal efforts relating to CFC's in the United States. Full information on research efforts for expenditures internal to individual firms is generally unavailable to the Department.

The chemical companies—DuPont, Allied, et cetera—are developing commercial processes for making R–134a and R–123. They also are working cooperatively on toxicology studies. The Motor Vehicle Manufacturers Assocation is working with the automobile industry in developing lubricating oils and elastomers that are compatible to R–134a, the chemical substitute preferred by this industry for mobile air-conditioning. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers is cosponsoring research at NBS with DOE on thermophysical properties of new, nonozone depleting refrigerants. ASHRAE also is hosting a CFC roundtable on research and development needs in June. Participants in the roundtable will be senior management from the chemical industry, refrigeration industry, and related national and international trade associations. The Polyisocyanurate Insulation Manufacturers Assocation is working cooperatively with DOE and the polyurethane foam industry in developing non-CFC blowing agents.

Refrigerator manufacturers are conducting in-house research on substitutes for the CFC-foam insulation used in refrigerator walls and for the CFC refrigerant. In fact, the General Electric Co. is introducing a new line of refrigerators based on R–11 chillers and are exploring the potential for using R–123.

Senator BUMPERS. What progress is being made in other countries on CFC research and replacement?

Miss FITZPATRICK. Through the IEA Advanced Heat Pumps Committee, the Department is aware of the progress in other countries on CFC research. Several countries, including Austria, Japan, The Netherlands, Norway, Sweden, and West Germany are formulating research plans. These countries all intend to develop substitutes for refrigeration. For example, West Germany has a $1.2 million budget to search for new refrigerants and refrigerant mixtures.

Senator BUMPERS. Are you doing research on alternatives?

Miss FITZPATRICK. Yes.

Senator BUMPERS. Are the chemical companies participating?

Miss FITZPATRICK. Yes.

Senator BUMPERS. Is DuPont?

Miss FITZPATRICK. I'm sure they are.

Senator BUMPERS. To what extent are they participating in this?

Miss FITZPATRICK. We can get that for the record.

[The information follows:]

### CFC ALTERNATIVES TO FOAM INSULATION

DOE funded research at the Massachusetts Institute of Technology on foam aging has an advisory panel from industry. The panel members represent Dow Chemical, Mobay Chemical, Koppers, Jim Walters, and Raytheon. The research has been assisted by industry contribution of special materials, and by MIT staff using industry facilities such as at Owens-Corning Fiberglas. Dow and Mobay Chemical companies are currently providing over $50,000 per year for research in this area at MIT. DOE-funded research at the National Bureau of Standards in Gaithersburg is developing a low thermal conductivity standard reference material [SRM] for industrial use to improve thermal resistance measurements on CFC insulation. An industry advisory panel representing DOE, Owens-Corning, Manvile, Pittsburg Corning, and Dynatech Scientific oversees this research and helps to check the research results in corresponding company facilities.

DOE has planned a joint public and private workshop on alternatives for CFC insulations. The workshop has been scheduled in Washington, DC, in June 1988. The planning team includes staff from the Society of Plastics Industry, Mobay Chemical Co., Jim Walters Corp., ICI Polyurethane, BSAF Corp., Dow Chemical Co., and UC Industries. The workshop will invite staff from over 35 industries and associations, including the DuPont Co.

The goal of the workshop is to establish a research agenda, to provide a forum to exchange technical results rapidly, and to recommend future activities. DuPont will be invited to participate in the joint government industry workshop on alternatives for CFC-blown insulation sponsored by DOE. Companies are providing some direct funds, in-kind services, panel participation, testing, material characterization, and material supplies.

### FOAM INSULATION

Mr. STREB. Insofar as the foam insulation work is concerned, we're doing evaluation at one of the national laboratories. To the best of my knowledge, DuPont is not directly involved in that. Some of the other insulation producers are, however.

Senator BUMPERS. I've been around here long enough to get kind of cynical when somebody like DuPont says we ought to quit making CFC's immediately.

They had more lobbyists out in the hall in 1976, when Senator Packwood and I offered the amendment to ban CFC use in aerosols by 1978, than any other industry. Of course, all of the chemical lobbyists were there in great numbers. That's probably the reason we got only 28 votes.

With the Montreal protocol and the announcements by DuPont and others, we are now where we should have been 10 years ago. But you can't get politicians to do anything unless there's a lot of television cameras around and unless they can feel it right then.

That was a long-range problem and we just simply couldn't get anybody's attention on it.

Of course, DuPont and others said at the time we can't measure the impact of CFC's on the ozone layer and we need to wait for the NAS study, et cetera. I listened to all those excuses in the hallways and on the Senate floor.

My point on this all along was if we were going to err, we ought to err on the side of caution because by not acting you're doing almost irreversible damage to the atmosphere. You can't afford to sit around and wait.

I feel the same way on the greenhouse effect and global warming. We are in an unbelievably disastrous situation. I promise you you can't get anybody's attention around here on that except a few scholars and physicists and scientists who deal with it all the time and who understand that we may be plotting not the overthrow of the Government, but the demise of the universe, or at least of the planet.

So, getting back, I'm just wondering if DuPont would have made their recent statement that they would phase out CFC production if they didn't have some substitute developed.

Do you know?

Miss FITZPATRICK. I don't know what it is if they do.

Senator BUMPERS. Of course, they wouldn't necessarily share that with you.

Miss FITZPATRICK. I may be the last person they'd tell. [Laughter.]

Senator BUMPERS. Well, that's a $600 million a year business with DuPont.

Miss FITZPATRICK. It's a big business, yes.

Senator BUMPERS. And I can't feature them just summarily coming out all of a sudden and saying, let's do the right thing for a change. [Laughter.]

### CHLOROFLUROCARBON SUBSTITUTES

Miss FITZPATRICK. There are some well-known alternatives. That is, everybody knows what they might be. CFC–134, for example.

But there's not sufficient information available. We haven't done the kinds of studies on toxicity, for example, to know whether they might not cause just as bad a problem as with the CFC's that are in use today. And I think that's the danger. We jump from the frying pan into the fire.

Senator BUMPERS. Well, I'll tell you one thing. That's one thing we certainly need to know before we go ahead with a substitute.

Miss FITZPATRICK. That's right. But there's no substitute for time in doing that kind of study. That's the problem.

So there isn't a quick solution.

Senator BUMPERS. What kind of coordination do you have with EPA on your research on CFC's?

Miss FITZPATRICK. We work with EPA mostly on indoor air quality, and CFC's don't come into that very much. So we're working on the technical solutions to how can we reduce—either find alternatives to CFC's or find refrigeration techniques that don't require working fluids, absorption techniques, for example, or Stirling engine.

So we don't work directly with—we haven't been, to my knowledge, been working directly with EPA on that.

Senator BUMPERS. This is such a serious global problem, that there may not be any point in worrying about jurisdictional differencies. What we have to do is find some substitute for these CFC's and get it in place as quickly as possible.

Miss FITZPATRICK. That's right.

### PAPER INDUSTRY RESEARCH

Senator BUMPERS. Are you doing research on the paper industry?

Miss FITZPATRICK. Yes, sir.

Senator BUMPERS. They're big in Arkansas, so I'm curious. What are you doing?

Miss FITZPATRICK. We're working with the paper industry on recycling and finding new uses for their wastes. The paper industry has done very well in the last 10 years or so with improving their use of waste wood bark and black liquor, and now they get about one-half of their total energy needs from these products.

We're also working with them on black liquor utilization and on drying processes. We've had a very successful project with them on a technique called impulse drying, which they're very enthusiastic about.

Senator BUMPERS. Have you requested any money for pyrolysis research in 1989?

Miss FITZPATRICK. Yes; we are doing pyrolysis work which involves taking wood chips and putting them through a pyrolysis system. We have an experimental system out at the Solar Energy Research Institute in Colorado, and getting products that can be used for such things as adhesives for plywood.

Senator BUMPERS. Are there energy savings from that process?

Or is it more a savings of what was a waste product?

Miss FITZPATRICK. It's the conversion of what was a waste.

Senator BUMPERS. Yes.

Miss FITZPATRICK. And also, the adhesives that would be replaced through that technique are usually made from petroleum.

It takes energy to do the pyrolysis, but we would be replacing the petroleum product with a wood product.

### STIRLING ENGINE RESEARCH

Senator BUMPERS. Let's go to the Stirling engine. Are you asking for any additional money this year for research on that engine?

Miss FITZPATRICK. Not on the automotive Stirling engine. We do have other projects involving the Stirling engine for stationary uses.

Senator BUMPERS. What are they and where are you?

Miss FITZPATRICK. We have one project which uses the Stirling engine as the prime mover on a heat pump. That's one of the examples I used of finding non-CFC refrigeration techniques.

We have——

Senator BUMPERS. For domestic and commercial use, both heat pumps?

Miss FITZPATRICK. Yes; we also have, under the renewables budget, the Stirling engine being used as the heat engine on a parabolic dish, solar collector, use the heat from the Sun to run the Stirling engine. The Stirling engine turns an electrical generator and we generate electricity.

So we have stationary uses for Stirling engines, not automotive.

### AUTOMOTIVE STIRLING ENGINE

Senator BUMPERS. With no additional funds requested, will any DOE sponsored Stirling engine activities continue in fiscal year 1989? How much of previous appropriations will be spent on these Stirling engine activities next year?

Miss FITZPATRICK. In the conservation budget area, activities concerned with the design and value engineering of an advanced transmission and compressor concept for free-piston Stirling engine heat pumps and the proof-of-concept automotive Stirling engine are scheduled for completion in fiscal year 1988. Some closeout costs may be spent in fiscal year 1989 from previous appropriations but the amounts will be minimal. In the renewable energy budget area, activities concerned with the design and fabrication of free-piston solar powered Stirling engines will be continued in fiscal year 1989.

Senator BUMPERS. Has the Stirling engine program met the technical goals of fuel efficiency and multifuel use established by the Department?

Miss FITZPATRICK. Although the final evaluation of the Mod II Stirling engine design has not been completed, preliminary testing and results of the Mod I portion of the program indicate that the program will meet the proof-of-concept technical goals for fuel efficiency and multifuel use.

Senator BUMPERS. Does the Stirling engine offer significant advantages over conventional automobile engines?

Miss FITZPATRICK. In addition to improved fuel efficiency and multifuel capability, the Stirling engine offers the potential for improved emissions control and more quiet operation compared to conventional automobile engines.

Senator BUMPERS. Why is the administration not proposing additional funding for Stirling engine R&D in fiscal year 1989?

Miss FITZPATRICK. The automotive Stirling engine proof-of-concept program will be completed in fiscal year 1988. Upon completion of characterization and testing of the Mod II prototype Stirling engines, a large technology base including designs for both Mod I and Mod II engines, engines and component test data, engineering analyses, and detailed design requirements will be available for industry's use in any future commercialization activities. Commercialization efforts focused on demonstrations with potential user customers or for further product development should be supported by industry.

### COMPARISON OF STIRLING AND ELECTRIC VEHICLES

Senator BUMPERS. How would projected cost and performance of the Stirling powered vehicle compare with those of a hybrid or electric powered vehicle? What would the performance comparison be with the advanced gas turbine engine?

Miss FITZPATRICK. The projected cost and performance of both the Stirling powered vehicle and the hybrid or electric powered vehicle are the same as an analogous conventional engine system powered vehicle. However, the electric powered vehicles are projected to have superior environmental impacts and maintenance requirements. Industry projections for the advanced gas turbine engine indicate lower production costs, improved performance and driveability, longer life, reduced maintenance, reduced system requirements, for example, weight, size, cooling, et cetera, and at least as good emissions and fuel flexibility when compared to a Stirling powered vehicle.

### USE OF HYDROGEN IN THE STIRLING ENGINE

Senator BUMPERS. What are the disadvantages?

Miss FITZPATRICK. The working fluid in it is hydrogen. If you don't use hydrogen, you lose the efficiency advantage. Hydrogen is a very difficult gas to work with. We're not at all convinced that it can be put into the hands of an average consumer and driven safely without high maintenance needs.

Senator BUMPERS. There's certainly an adequate supply of it, though, isn't there?

Miss Fitzpatrick. No; hydrogen is something you have to make. You have to get it out of something. It doesn't occur free in nature. So you have to use energy. In fact, you have to use about 4 to 10 times as much energy to extract hydrogen from a compound than you get if you use it as——

Senator Bumpers. You do?

Miss Fitzpatrick. Oh, yes; it's very difficult.

Senator Bumpers. Why are we so hot for this engine?

Miss Fitzpatrick. I'm not. [Laughter.]

Actually, hydrogen is not used as a fuel in the engine. Hydrogen is used as the gas inside the pistons, the gas which, you feed heat into it from another combustion source, or from solar heat, whatever you're using, and it expands, drives the pistons, then you drain the heat off and you keep going through a cycle.

Senator Bumpers. So it's a recycling.

Miss Fitzpatrick. It's a recycle—that is, you put a supply of hydrogen into the engine and it stays there and is recycled through the piston system. The problem is that hydrogen is very hard to keep contained. It leaks. The seals are extremely difficult to maintain, and if you're doing that in an engine which is on an automobile and subject to all the vibration and the stress that you put an automobile engine through, you have problems with leakage.

Senator Bumpers. Well, I want to be sure that I understand this because I haven't thought about that Stirling engine in 3 years. We used to talk a lot about it. When I first came to the Senate, we were talking about the Stirling engine.

Miss Fitzpatrick. Yes.

Senator Bumpers. That's been several haircuts ago. [Laughter.]

Miss Fitzpatrick. Well, we've spent $140 million on it, mostly over our objections.

Senator Bumpers. I want to just ask this question. The technology is proven. There isn't any question about hydrogen propulsion. I mean, you can use the hydrogen to propel an automobile with this engine.

Miss Fitzpatrick. Yes; it works.

Senator Bumpers. The problem of the technology is that hydrogen is difficult to work with and difficult to contain.

Miss Fitzpatrick. Yes.

Senator Bumpers. Well, let me ask you this question. If we could figure out how to contain the hydrogen, then why isn't this a very legitimate technology, if you can recycle this hydrogen and continue using it over and over?

Miss Fitzpatrick. Well, if you could solve those problems, it might be.

Senator Bumpers. Well, is that what we're trying to do?

### LACK OF INDUSTRY INTEREST IN STIRLING ENGINE

Miss FITZPATRICK. No; we've completed our work on the engine. The auto industry has tested it. We've given them engines that we've built and they've looked at it. They've followed closely the whole development of it. And they're just not interested in building it.

There is one——

Senator BUMPERS. Well, now, that doesn't shock me.

Miss FITZPATRICK. Well, there is one—not an auto manufacturer, but another engine manufacturer that has shown some interest in it. But that would be for a rather limited market.

The economics of making that engine——

Senator BUMPERS. I take it they've not given you any money to help with this research.

Miss FITZPATRICK. They would like us to give them some money.

Senator BUMPERS. So they could do the research?

Miss FITZPATRICK. No; they're not talking about even research to further develop the engine. They just want us to help them build some engines so they can do what amounts to a marketing demonstration.

And I wouldn't suggest that the Department do that for any technology, frankly.

Senator BUMPERS. I couldn't agree with you more. You know, there are some things sometimes when I feel that we ought to—I think the Government has an obligation to do certain kinds of research that we know have promise. I mean, superconductivity research is a classic case. I think that superconductivity has a great potential for savings of energy in this country.

You can't ask—well, you can, and the utility companies, as I understand it, are putting up some of the money on this, are they not?

### SUPERCONDUCTIVITY

Miss FITZPATRICK. Yes; OK, superconductivity. The utility companies are very interested in that. We have some joint projects with EPRI, the Electric Power Research Institute, on superconductivity. Some of them are working with some of the national laboratories.

Senator BUMPERS. You're making pretty good progress, too, aren't you?

Miss FITZPATRICK. The progress that's been made in high-temperature superconductors is astounding. I think anybody would agree with that. We have a long way to go.

Senator BUMPERS. There are a couple of scientists down at the University of Arkansas that have just done a remarkable job on that.

Miss FITZPATRICK. Yes; I've read about them.

Senator BUMPERS. They've got a lab—you ought to see where they're working. You all ought to be ashamed to let two bright guys like that be working in conditions like that. [Laughter.]

Miss FITZPATRICK. You should see Al's office. [Laughter.]

Senator BUMPERS. Listen, I've never been in a bureaucrat's office in my life that wasn't twice as posh as mine is. [Laughter.]

But getting back to the point, there are some things that the Government has to do in the national interest, if, for no other reason, than just simply because the private sector, even though they might should, will not do it.

Miss FITZPATRICK. Yes.

Senator BUMPERS. One of my objections around here is we ought to make them pay through the nose once we do it in licenses and so on. We don't. We wind up giving everything away.

There are two ways of looking at it. You do that for the benefit of the people and by giving it away, you're actually returning some of their tax dollars to them that way.

Miss FITZPATRICK. That's right.

Senator BUMPERS. But it always irritates me that the Government has to do so much of the research. And you go back and look at all the things that make for quality of life in this country and you'll find that a good big portion of the research has been done by the Government, not by the private sector.

I could go off on one of my campaign speeches right now, but I won't. [Laughter.]

Let's see. We've covered Stirling. We've covered ceramics.

Steel initiative. How much has been obligated for the initiative and what's the present obligated balance of funds appropriated for the program?

## STEEL INITIATIVE

Miss FITZPATRICK. I think the total appropriated over I guess about 3 years has been about $11 million. Mr. Streb will correct me if I'm wrong.

Mr. STREB. About $13 million.

Miss FITZPATRICK. $13 million. We have obligated about $3.5 or $4 million.

Senator BUMPERS. Now, tell me basically what are we trying to accomplish with this program? What's your goal?

Miss FITZPATRICK. The steel initiative was to give the steel industry access to the national laboratories and have national laboratories work with the industry in doing specific technology development projects.

We are interested in such things as what's called near-net shape casting; that is, casting the steel in a shape that is very close to the final size that you want. That's because when steel is cast in slabs that are, for example, 18 inches thick, it takes a lot of energy to keep reheating the slab to roll that slab down to, say, sheet metal.

So we would like to do what's called thin casting of steel.

We need to have more efficient ways of reducing the iron ore to metal. We need to make better use of scrap steel.

So we have——

USE OF ELECTRICITY IN STEEL MAKING

Senator BUMPERS. Well, let's talk about scrap steel. We've got a big, new $200 million steel mill in Arkansas that's just within 3 months of completion. I went through it last week. It was difficult, but I could kind of get an idea of how this thing's going to work.

The whole thing, the entire production of that mill is from scrap steel. I'm curious as to—as I understand it, are they using electricity to melt that steel?

Miss FITZPATRICK. Probably. It's probably an electric furnace, yes.

Senator BUMPERS. They tell me they're going to be the biggest consumer of electricity in my State.

Miss FITZPATRICK. Well, you see, you had a surplus and now it's gone. [Laughter.]

Senator BUMPERS. Well, as a matter of fact, they are helping take some of that surplus.

Miss FITZPATRICK. Sure.

Senator BUMPERS. And that's one of the reasons they came there.

Miss FITZPATRICK. Yes.

Senator BUMPERS. As I say, they got a deal they couldn't refuse.

But it seems to me, when you consider the fact that when you convert coal to electricity, you lose two-thirds of the energy you'd get if you were directly burning it.

Miss FITZPATRICK. You'd lose about two-thirds of the chemical energy that is potential in the coal, right.

Senator BUMPERS. OK. Now, considering that, why is that the best way to melt scrap steel? I'm talking about from an energy efficiency standpoint.

Miss FITZPATRICK. If I were a plant manager, I would say one of the best things to do is to have somebody else burn the coal some place else.

Senator BUMPERS. Is it the environmental considerations? Is that what we're talking about?

Miss FITZPATRICK. From the plant manager's point of view, somebody else has the environmental problem. He doesn't. He gets clean electricity on the wire.

Whether there are any energy efficiencies to it, I don't know.

Senator BUMPERS. Well, what if you had natural gas? Can you do it more cheaply with natural gas?

Miss FITZPATRICK. I don't know that you could do it more cheaply.

Senator BUMPERS. You probably can't or they'd be doing it because we do have a fairly abundant supply of natural gas.

Miss FITZPATRICK. Right.

Mr. STREB. I think probably the principal problem here is that you could use other fuels, other carbon-based fuels like natural gas or coal, but in the process of melting the scrap, you would contaminate it with carbon. Steel has a great affinity for carbon and you would then have another step in the process. You'd have to go through what's called a basic oxygen furnace—it's a BOF—in order to reduce the carbon content in that melted steel.

So, from a practical standpoint, the electric arc furnace is just ideal for the so-called minimills that are taking scrap predominantly and using it as their feedstock.

It's the cheapest way to go from a capital standpoint.

Senator BUMPERS. I can hardly wait for that place to open because I'm really anxious to see the technology in operation. This is not our first mill in Arkansas, but it will be a fairly big operation.

How much is in your 1988 budget for the ceramic heat exchanger solicitation?

## CERAMIC HEAT EXCHANGERS

Miss FITZPATRICK. Could I ask Mr. Streb to look that up for you, please?

Senator BUMPERS. Yes.

Mr. STREB. It's approximately—this is in the industrial program. It's approximately $1 million as part of the waste heat recovery activity.

Senator BUMPERS. When does this solicitation close?

Mr. STREB. There are two aspects to the solicitation out of that program. One has to do with improved ceramic materials themselves—fiber-reinforced ceramics in order to achieve higher pressure containment capability.

The other aspect has to do with improved heat exchanger surface, enhancing the surface so that you have higher efficiency of heat transfer.

John, what's the closing date on that?

Mr. ROSSMEISSL. I'm not sure. I think it's late May or early June.

Miss FITZPATRICK. We can get you that for the record, Mr. Chairman.

[The information follows:]

### DATE OF HEAT EXCHANGER SOLICITATION

The solicitation for the high pressure heat exchanger system [HiPHES] ceramic heat exchanger closes on April 22, 1988.

## DESIGN PHASE AWARDS

Senator BUMPERS. OK. How many awards do you plan for the initial design phase of this effort?

Mr. STREB. I think it depends entirely on the nature of the proposals and the magnitude of the requests.

Senator BUMPERS. In other words, you're just going to pick out the best ones and if it's three, that will be three, or whatever?

Mr. STREB. That's typically the way we would do something like this.

Senator BUMPERS. How will this technology differ from products that are now being offered by Hague International in Portland, ME?

Mr. STREB. I believe that the Hague products are probably monolithic ceramic, silicon carbide ceramic materials. The main thrust of our current effort is what I mentioned before, fiber-reinforced ceramics, in order to give it greater tensile strength.

So it is an advancement over the monolithic.

## STATE AND LOCAL PROGRAMS

Senator Bumpers. Now, as I noted in my opening statement, Madame Secretary, the request for State and local programs is down 94 percent. You indicated in your formal statement that the States have enough money from oil overcharge distributions and stripper well settlements to fund energy conservation grants for the next 14 years at the 1988 level of $212 million.

Is that correct?

Miss Fitzpatrick. That's right. They have received about $3.5 billion in overcharge moneys.

Senator Bumpers. Have they already gotten that money?

Miss Fitzpatrick. Yes; the first increment of it came in 1983. As of last summer, and I think to date, they haven't spent all of that, actually. That was $200 million. In 1986, they got $2.1 billion from Exxon and almost $800 million from stripper well, and there have been several other cases also that have totaled up to a little over $3.5 billion.

## WEATHERIZATION ASSISTANCE PROGRAM

Senator Bumpers. Isn't the comparison that States have enough energy conservation money from oil overcharge distribution—for the next 14 years—misleading because it leaves out State expenditures for the Low-Income Energy Assistance Program [LIHEAP] for which the States allocated approximately $79 million to date and for which they are expected to use even more overcharge money this year due to the lower Federal appropriation for LIHEAP in fiscal year 1988?

Miss Fitzpatrick. States have designated less than one-half of the $3.5 billion they received from all overcharge case resolutions in the last 2 years. With these funds, energy conservation grants could be funded at the fiscal year 1988 Department of Energy program level for approximately 14 years. This analysis does not include the $167 million States plan to use from LIHEAP appropriations. It does appear that some States are displacing some of the reduction in LIHEAP funds with oil overcharge funds. The designation of oil overcharge funds is an individual State perogative provided such designations comply with the applicable court order. The oil overcharge funds, however, represent a significantly larger funding source than the current appropriations and one for which States can individually designate program expenditures to best meet their energy conservation needs.

Senator Bumpers. More importantly, since the distribution of oil overcharge moneys is directed to those States whose citizens were overcharged based on oil usage moneys, the availability of these funds does not necessarily correlate with the need for low-income weatherization assistance, for example, does it?

Miss Fitzpatrick. It is true that the basis for the distribution of oil overcharge moneys to States is different from the basis for the allocation of federally appropriated weatherization funds to the State. Nevertheless, the amount of overcharge funds already distributed is large enough that States should be able to fund weatherization and other energy conservation programs above present appropriation levels and supplement their LIHEAP appropriations for several years to come.

Senator BUMPERS. But, now, don't they have to use most of that for the LIHEAP Program?

Miss FITZPATRICK. No; the LIHEAP is one of the permitted uses. But within the permitted uses, there are no requirements as to how much they can spend on any particular program.

They have continued to get appropriations for LIHEAP, although they've been reduced somewhat last year.

Senator BUMPERS. Well, these oil overcharges go back mostly to the States where the overcharges were collected.

Is that right?

Miss FITZPATRICK. Yes; they're allocated to the States on the basis of the State's petroleum consumption during the time that the overcharges occurred, which would have been the 1970's, up to 1980, through 1980.

Senator BUMPERS. So that means some States who are not getting very much of this because the oil wasn't used in their States, does that mean that they're going to have to fund their own LIHEAP Program?

Miss FITZPATRICK. No; it really didn't trace the actual oil that was supposed to have been overcharged. They just looked at the total oil consumption of the State during that period and added them all up and allocated the refunds on the basis of total oil consumption. They didn't try to trace oil that had been overpriced.

It gets impossible to follow it through the refinery system.

Senator BUMPERS. I want to be sure that's true because the question that I had here indicated otherwise.

So this money is going on sort of an oil use basis.

Miss FITZPATRICK. Yes.

Senator BUMPERS. In other words, every State is going to get a refund for these oil overcharges. They're getting them based on the oil consumption in that State.

Miss FITZPATRICK. That's right.

Senator BUMPERS. Whether any of the overcharges occurred in that State or not.

Miss FITZPATRICK. Well, the overcharges occurred way up the production line, say at the wellhead, almost. Some of them. There were other overcharges, I think.

It's just impossible to trace oil all the way through the refinery and distribution system and say it ended up in one particular place.

I'm not aware of any States that don't have enough money to carry on their energy programs, so——

Senator BUMPERS. We may pursue that with written questions.

Miss FITZPATRICK. That will be fine. We have lots of written data we can give you on the distributions.

## STATE GRANTS

Senator **Bumpers**. Would you provide for the record a listing of the unobligated overcharge dollars available to each State along with a comparison to their fiscal year 1987 Federal appropriations for each of the four eligible conservation programs and provide a column which shows the number of years each State could sustain these four programs with the unobligated balances available to them? Please provide the same information with LIHEAP costs included in the eligible programs.

Miss **Fitzpatrick**. The States submit oil overcharge fund plans to the Department on an annual basis, while in many cases the States have allocated funds to be spent over a period of several years. Thus, although our records indicate that DOE has approved $809,459,374 in Exxon funds—representing 45 percent of the $2.1 billion judgment—in reality the States have allocated a much larger percentage of those funds. For example, the State of Massachusetts has obligated $52 million to the Weatherization Assistance Program to be spent over 3 years. As of this date, DOE has approved $29.8 million of that total. We are unable to provide information on the States' plans regarding LIHEAP, since that program is operated by HHS and we have no authority to require the States to provide us with that information. I will submit a listing of the overcharge funds received by each State, compared with the fiscal year 1987 appropriation for each of the OSLAP grant programs, the total Exxon funds DOE has approved for expenditure and stripper well funds which have been found consistent with the settlement agreement for each State, and a calculation of the length of time each State could sustain the OSLAP grant programs at current levels with the balance of overcharge funds not yet approved or concurred in by DOE.

[The information follows:]

COMPARISON OF OIL OVERCHARGE FUNDS DISTRIBUTED TO STATES AND OSLAP GRANT FUNDING

| STATE | TOTAL OVERCHARGE FUNDS* | FY 1987 WAP APPROPRIATION | FY 1987 ICP APPROPRIATION | FY 1987 SECP APPROPRIATION | FY 1987 EES APPROPRIATION | EXXON/S-W FUNDS APPROVED TO DATE | YRS PROGRAM CONTINUATION |
|---|---|---|---|---|---|---|---|
| ALABAMA | $53,383,476 | $1,431,488 | $362,094 | $158,700 | $68,400 | $29,841,000 | 12 |
| ALASKA | $13,692,420 | $1,426,247 | $145,212 | $55,700 | $38,500 | $5,550,000 | 5 |
| AMERICAN SAMOA | $671,588 | $0 | $84,059 | $42,300 | $35,100 | $150,000 | 3 |
| ARIZONA | $35,216,916 | $599,873 | $291,069 | $119,900 | $58,200 | $21,717,024 | 13 |
| ARKANSAS | $42,154,102 | $1,354,990 | $254,815 | $144,900 | $54,500 | $17,661,650 | 14 |
| CALIFORNIA | $323,261,040 | $4,256,241 | $1,334,972 | $632,500 | $238,900 | $101,290,795 | 34 |
| COLORADO | $37,260,106 | $3,615,378 | $404,913 | $129,400 | $59,700 | $29,264,706 | 2 |
| CONNECTICUT | $57,195,215 | $2,245,680 | $408,619 | $138,900 | $61,600 | $21,360,922 | 13 |
| DELAWARE | $16,058,807 | $506,585 | $128,751 | $60,700 | $39,900 | $8,063,421 | 11 |
| DISTRICT OF COLUMBIA | $7,797,291 | $601,836 | $132,592 | $60,200 | $40,300 | $3,807,617 | 5 |
| FLORIDA | $160,300,611 | $529,776 | $693,591 | $283,100 | $118,800 | $34,714,000 | 77 |
| GEORGIA | $77,608,029 | $1,616,915 | $461,626 | $197,600 | $81,900 | $48,350,890 | 12 |
| GUAM | $4,894,049 | $0 | $90,419 | $44,000 | $35,700 | $229,329 | 27 |
| HAWAII | $23,948,341 | $166,392 | $134,787 | $65,600 | $43,100 | $9,463,721 | 35 |
| IDAHO | $14,418,948 | $1,565,252 | $180,488 | $67,600 | $42,900 | $10,490,123 | 2 |
| ILLINOIS | $160,921,781 | $9,858,725 | $1,328,874 | $409,200 | $133,300 | $84,846,530 | 6 |
| INDIANA | $85,493,707 | $4,629,308 | $646,445 | $257,900 | $82,100 | $41,366,688 | 8 |
| IOWA | $45,617,080 | $3,894,189 | $426,906 | $137,800 | $59,900 | $41,221,188 | 1 |
| KANSAS | $40,683,144 | $1,787,939 | $312,285 | $144,100 | $55,200 | $4,908,221 | 16 |
| KENTUCKY | $44,668,746 | $3,094,226 | $402,014 | $172,200 | $66,400 | $5,249,000 | 11 |
| LOUISIANA | $84,448,222 | $704,998 | $357,039 | $251,100 | $71,100 | $21,535,120 | 45 |
| MAINE | $24,791,862 | $2,650,760 | $231,950 | $73,300 | $44,500 | $15,480,000 | 3 |
| MARYLAND | $60,438,332 | $2,105,663 | $455,780 | $170,700 | $71,200 | $28,456,451 | 11 |
| MASSACHUSETTS | $115,038,885 | $5,355,808 | $690,500 | $196,300 | $84,300 | $66,755,042 | 8 |
| MICHIGAN | $119,203,041 | $10,915,549 | $1,140,167 | $318,800 | $114,700 | $57,077,516 | 5 |
| MINNESOTA | $59,667,881 | $8,133,472 | $662,102 | $189,600 | $69,900 | $39,726,719 | 2 |
| MISSISSIPPI | $47,097,150 | $929,466 | $260,082 | $112,700 | $56,500 | $35,920,227 | 8 |
| MISSOURI | $68,663,552 | $4,275,756 | $566,354 | $181,000 | $77,200 | $39,320,177 | 6 |
| MONTANA | $15,512,419 | $1,843,363 | $176,398 | $65,400 | $41,600 | $9,569,342 | 3 |
| NEBRASKA | $25,427,880 | $2,022,169 | $256,586 | $92,000 | $48,300 | $4,317,450 | 9 |
| NEVADA | $14,306,658 | $468,057 | $155,229 | $69,700 | $41,700 | $9,140,549 | 7 |
| NEW HAMPSHIRE | $15,674,964 | $1,351,163 | $199,573 | $70,200 | $42,800 | $10,773,252 | 3 |
| NEW JERSEY | $123,828,049 | $4,484,265 | $795,627 | $311,800 | $98,200 | $42,728,584 | 14 |
| NEW MEXICO | $22,346,267 | $1,285,191 | $186,100 | $83,700 | $46,000 | $16,871,589 | 3 |
| NEW YORK | $260,282,861 | $16,643,062 | $1,890,510 | $531,100 | $186,200 | $194,985,947 | 3 |
| NORTHERN MARIANAS | $305,866 | $0 | $82,823 | $42,000 | $35,000 | $175,275 | 1 |
| NORTH CAROLINA | $76,254,102 | $2,586,869 | $519,179 | $206,600 | $85,500 | $11,470,763 | 19 |
| NORTH DAKOTA | $13,052,483 | $1,995,071 | $173,717 | $59,500 | $40,400 | $8,678,855 | 2 |

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|---|---|---|---|---|---|---|---|
| OHIO | $131,988,390 | $9,161,201 | $1,188,891 | $393,800 | $127,900 | $71,231,739 | 6 |
| OKLAHOMA | $43,308,114 | $1,624,072 | $332,145 | $147,200 | $60,900 | $16,325,464 | 12 |
| OREGON | $34,474,407 | $2,120,406 | $292,288 | $134,700 | $57,500 | $20,812,659 | 5 |
| PENNSYLVANIA | $159,578,696 | $10,694,515 | $1,276,340 | $339,700 | $137,100 | $14,011,593 | 12 |
| PUERTO RICO | $38,012,010 | $0 | $322,685 | $104,700 | $62,500 | $0 | 78 |
| RHODE ISLAND | $13,242,094 | $996,377 | $180,777 | $75,100 | $43,000 | $8,111,771 | 4 |
| SOUTH CAROLINA | $40,803,086 | $995,003 | $296,608 | $130,200 | $61,700 | $795,000 | 27 |
| SOUTH DAKOTA | $12,471,556 | $1,751,543 | $163,942 | $58,600 | $40,800 | $12,471,556 | 0 |
| TENNESSEE | $56,184,751 | $2,823,940 | $453,530 | $189,500 | $74,400 | $37,094,000 | 5 |
| TEXAS | $258,137,495 | $2,123,407 | $1,115,948 | $624,900 | $157,400 | $31,020,732 | 56 |
| TRUST TERRITORIES | $0 | $0 | $0 | $43,800 | $35,800 | $0 | 0 |
| UTAH | $20,843,211 | $1,507,764 | $236,960 | $85,400 | $47,400 | $9,364,484 | 6 |
| VERMONT | $8,046,939 | $1,125,538 | $152,162 | $60,100 | $39,200 | $3,002,400 | 4 |
| VIRGIN ISLANDS | $15,965,040 | $0 | $86,025 | $49,200 | $35,700 | $547,000 | 90 |
| VIRGINIA | $87,171,960 | $2,807,473 | $524,762 | $196,200 | $80,900 | $15,383,000 | 20 |
| WASHINGTON | $53,191,699 | $3,337,274 | $450,371 | $136,600 | $70,400 | $28,498,673 | 6 |
| WEST VIRGINIA | $20,754,525 | $2,136,995 | $255,170 | $133,400 | $51,600 | $8,934,092 | 5 |
| WISCONSIN | $60,573,693 | $6,423,622 | $670,177 | $205,100 | $75,400 | $26,077,970 | 5 |
| WYOMING | $14,300,295 | $796,320 | $132,693 | $63,000 | $38,900 | $2,000,000 | 12 |
| TOTAL | $3,460,633,832 | $161,357,172 | $25,155,721 | $9,519,000 | $3,968,000 | $1,438,211,816 | 14 |

*INCLUDES ALL OHA DISTRIBUTIONS AS WELL AS EXXON AND STRIPPER WELL

## ELECTRIC VEHICLE BATTERY RESEARCH

Senator BUMPERS. Let me just ask you one final question, and that is on the electric vehicle and battery research.

Do you have money in your budget request for that?

Miss FITZPATRICK. Yes; we have money in for what we consider the three most promising types of batteries.

Senator BUMPERS. And what are they?

Miss FITZPATRICK. The sodium sulphur battery, the zinc bromine, and the lithium metal sulphide batteries.

Senator BUMPERS. Who's doing the research on those three?

Miss FITZPATRICK. The sodium sulphur battery is being done mostly by a British company, Lucas Chloride.

Senator BUMPERS. Under grant from us?

Miss FITZPATRICK. Under contract from us and they won it in a competition. We did a competitive bid. We were looking for a U.S.——

Senator BUMPERS. Is that an American division of an English company?

Miss FITZPATRICK. No; it's actually——

Senator BUMPERS. Are we sending money to England for this research?

Miss FITZPATRICK. I'm afraid so. We were looking for a U.S. contractor—we would like very much to have a contract in the United States.

Senator BUMPERS. That is really interesting.

Miss FITZPATRICK. It is, but they had a very competitive——

Senator BUMPERS. Could you have sent that to the Soviet Union just as easily if they won the competition?

Miss FITZPATRICK. No, sir; no, sir; I would not have done that. [Laughter.]

Senator BUMPERS. Who all is eligible to compete on a grant like that?

Miss FITZPATRICK. Anybody. We publish in Commerce Business Daily and anybody who wants to compete can come in and compete.

Senator BUMPERS. How much money did you give this English company?

Miss FITZPATRICK. I think it's, what a $3 million contract?

Mr. BROWN. It's actually a combined effort with EPRI, so it's about $6 million total.

Miss FITZPATRICK. It's about a $6 million total. It's over several years.

Senator BUMPERS. I'm not all that offended by that. I'm just sort of amazed.

When was this grant made?

Miss FITZPATRICK. Two years ago.

Senator BUMPERS. And how are they doing?

Miss FITZPATRICK. They're doing very well. We hope to have a sodium sulphur battery operating in a car this year. In fact, there's another sodium sulphur battery that Ford is installing in one of our test vehicles.

Senator BUMPERS. What will it do that our current batteries won't do?

Miss FITZPATRICK. The sodium sulphur battery has a higher energy density. You get more energy stored in the battery for a given weight and volume. And, of course, in an automobile, weight and volume are critical features.

We get higher power density. You can get the energy out of it faster. An electric vehicle battery is going to have to go through many, many charge and discharge cycles. Many of the batteries we've worked with simply begin to deteriorate and break down too fast. The sodium sulphur battery seems to be very reliable and durable in that respect.

It's a very promising battery.

We also, of course, look at ease of maintenance and cost as important criteria.

## INDUSTRY PARTICIPATION IN BATTERY RESEARCH

Senator BUMPERS. Is the industry contributing anything to this?

Miss FITZPATRICK. I don't think there's actually any industry funds going into that contract. We work very closely with industry—oh, excuse me. I'm corrected. About 40 percent.

Senator BUMPERS. From the American automobile industry?

Miss FITZPATRICK. From the contractor itself. It's putting 40 percent of the cost of the project in. But U.S. industry isn't putting money into that project. But U.S. industry is certainly putting money into developing electric vehicles and the various components that will have to go into the vehicle.

Senator BUMPERS. You described one battery for me. What are the other two? You said there were three.

Miss FITZPATRICK. There are three that we would like to do work on—the zinc bromine battery and the lithium metal sulphide battery.

The lithium metal sulphide is very much in the exploratory stage. But, theoretically, that is, just judging from the chemistry of the system, that could be a very useful battery. And the zinc bromine battery is further along.

Also, we're looking there for the advantages that it has with weight, volume, power, and energy densities. And cost and maintenance.

## PROGRESS IN ELECTRIC VEHICLES

Senator BUMPERS. Where are we right now in electric vehicles from where we were 10 years ago?

Miss FITZPATRICK. We are light years along. General Motors next year expects to begin marketing a van, an electric van that will be a nine-passenger, a 1-ton cargo capacity that was developed largely through the Department of Energy.

Senator BUMPERS. What kind of battery does it have? What kind of power system?

Miss FITZPATRICK. That one will have a lead acid battery.

Senator BUMPERS. Lead acid battery?

Miss FITZPATRICK. Yes; that's what we call an advanced lead acid battery. It has a tubular plate system in it, which makes it very durable.

Senator BUMPERS. And how long a life does the battery have before recharging? How long will the van run before they have to recharge the battery?

Miss FITZPATRICK. 60 miles, which doesn't sound like a lot unless you consider that there are about 16 million vehicles in this country that never go more than about 60 miles in a day. They're used for service vehicles, fleet, delivery vans, that kind of thing.

There's a big market niche for that.

Senator BUMPERS. How expensive is this van going to be?

Miss FITZPATRICK. The van will cost more than a gasoline-powered vehicle up front. I think it's about 20 or 25 percent more. But, over the life of operating the vehicle——

Senator BUMPERS. Save a lot of money?

Miss FITZPATRICK. It should be about the same as a gasoline vehicle. It should be competitive.

Senator BUMPERS. Easier to maintain?

Miss FITZPATRICK. Much easier to maintain.

Senator BUMPERS. Well, that's encouraging.

Miss FITZPATRICK. I think that electric vehicles are really the sleeper in the transportation area.

Senator BUMPERS. I'm sorry my ranking colleague, Jim McClure, is not here. Of course, I'm glad he's not. He'd talk about this for an hour. [Laughter.]

Miss FITZPATRICK. We've had many discussions with the Senator, yes. [Laughter.]

Senator BUMPERS. But I must say, to his credit, he's been very tenacious on electric vehicles through the years.

Miss FITZPATRICK. Yes; he has.

Senator BUMPERS. He's had a parochial interest in it, but we all have parochial interests that we are very tenacious about.

But that's very encouraging, to know that General Motors is actually going to market commercially a van.

Miss FITZPATRICK. Well, I think what's going to drive the switch to electric vehicles is going to be not so much the economics of it, because what we're looking for is—what we're trying to get is a break-even, just make them competitive. I don't know that you can say that there would be a great advantage economically.

But I think the environmental concerns that are becoming more and more serious are going to be a major driver in people adopting electric vehicles.

So I'm glad to see that the technology is developing to the point where they are very nearly commercial.

## ADDITIONAL COMMITTEE QUESTIONS

Senator **Bumpers**. Madame Secretary, I appreciate very much you and your colleagues being with us today. You've been very forthright.

We have several questions that we'll submit to you in writing. Please get them back to us as quickly as you can.

Miss **Fitzpatrick**. Thank you, Mr. Chairman.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### Wood Wastes

Question: How much is budgeted for converting wood wastes to commercial adhesives?

Answer: $260,000 is included in the FY 1989 Budget Request.

Question: What is the energy conservation aspect of this project?

Answer: Plywood and particleboard require large quantities of phenol-formaldehyde and resorcinol-formaldehyde resin thermosetting adhesives--now derived from crude oil. One and a half billion pounds of these adhesives are consumed annually. Lignin from waste wood (bark, sawdust, and kraft papermill residues) could provide a substitute source of phenol for the resins. The objective of the project is to develop an adhesive production and use system for the wood products industry, based on wood waste, to replace oil-based adhesives. These adhesives must be equal to or better than present oil-based adhesives in terms of performance and process characteristics, e.g. sufficient strength and short press cure time. The wood industry energy saving potential is 0.08 quad based on 50% market penetration.

### High Rate Pyrolysis

Question: In the current year you are initiating a high rate pyrolysis process for papermill sludge. What is the status of this effort and how much is budgeted this year?

Answer: This effort will be initiated in FY 1988. Experimental procedures will be defined for laboratory and pilot scale tests. Samples of sludge from cooperating papermills will be identified. $1,000,000 is budgeted for FY 1988.

Question: Why are no funds requested to continue the pyrolysis research in FY 1989?

Answer: This effort to extend present wood waste-to-chemicals research to other possible wastes sources is exploratory and will be carried out as a short series of experiments to be interspersed among the wood waste-to-adhesives tests at SERI. A limiting factor is the availability of equipment now used successfully for wood waste-based adhesives development. The equipment to be used is the high rate vortex pyrolysis reactor developed by SERI, now successfully producing test quantities of oils for adhesives. If these tests on papermill sludge during FY 89 show promise of yielding high value chemical precursors (oils, gases), funds will be requested to continue this work in FY 1990.

### Paper Industry

Question: The Office of Industrial Programs has also been developing sensor instruments and control devices to provide paper plant managers with better information and, to some degree, automatic controls over the paper-making process. What are the projected benefits of these activities to the paper industry in terms of energy and dollar savings?

Answer: An hour of substandard production per shift, which is typical, represents 12.5% of a paper machine's production. Repulping and remanufacture requires about 13.8 million Btus per ton. If 12.5% of the 70 million tons of paper and board produced annually requires reprocessing, the energy wasted by substandard production alone is 120 trillion Btus each year. At current oil prices, the value of this much energy is over $250 million. Sensors and controls being supported by DOE should save at least half this amount.

Question: The FY 1989 request proposes to solicit cost-shared industrial research on applying computerized "expert system" techniques to the paper industry. How much is requested for this solicitation; when would the solicitation be conducted; and how many awards are contemplated?

Answer: DOE has received unsolicted proposals for work on expert systems. If requested funds are appropriated for sensors and controls, a solicitation would be prepared for issuance early in FY 1989. The number of awards, and the amount of FY 1989 appropriations used, will depend on the quality of proposals received.

Question: Do you anticipate a number of responses to this solicitation: and, if so, could you effectively use an additional $500,000 for the development of these "expert systems" for use in the paper industry?

Answer: We would anticipate at least five responses to such a solicitation. With appropriations of over $2 million for sensors and controls, however, $500,000 more for the specific purpose of paper industry "expert systems" would not be necessary.

## Automotive Stirling Engine

Question: What will happen to the American investment in Stirling engine development if a demonstration and commercialization program is not undertaken in FY 1989? Will we lose the engine design teams that have the expertise in this engine; will we have spent more than $100 million simply for paper studies and a few test engines?

Answer: If a demonstration and commercialization program for the automotive Stirling engine is not undertaken in FY 1989, it should have little or no impact on the American investment in Stirling engine technology development. All of the technology developed to date will be available for industry use in any application which looks promising. The automotive industry has shown very limited interest in the technology despite an aggressive campaign by both NASA and DOE to keep industry informed and to transfer technology developed. However, the technology developed under the program is being utilized by industry for gas liquefaction, residential and commercial heat pumps, small power generation, and other non-automotive applications and by NASA for space-power applications. There are now four or five industrial organizations in the United States which have the capability to compete on Stirling engine developments.

Question: Are we apt to be in a position in a few years of having to buy Stirling engines, based on American research, from foreign manufacturers or are you quite certain that there will be no market for this engine in the future?

Answer: The Japanese government has terminated support for automotive Stirling engine development and United Stirling of Sweden, the original world leaders in Stirling technology, has also discontinued further work on automotive applications. It seems quite likely that any future market will be limited at best and the technology base already developed should allow United States manufacturers to compete successfully.

## Stirling Engine Fixed Applications

Question: Does the Department have an estimate of the five-year development cost for a Stirling engine powered irrigation system?

Answer: The Department of Energy is not involved in development of irrigation systems and is not aware of a five-year plan for a Stirling engine powered irrigation system. The Department of Agriculture recently initiated two procurement actions through a request for proposals for the design and test of an external combustion Stirling engine system for irrigation applications. Valmont Industries and Ohio State University were awarded contracts for the work, but there is no long-range plan for complete system development.

Question: What cost-sharing has been offered, by year, for this development?

Answer: The Department of Energy is not involved in such a development.

Question: In 1982 the Department completed a study which recommended that any further Stirling engine research can be shifted from mobile to stationary applications. But the Department has sponsored no research on large fixed applications, has it?

Answer: The referenced study is probably the work performed by Arthur D. Little, Inc., on Stirling engine applications during 1982 and 1983. The study considered over 100 applications for engines which were finally grouped into 10 application classes. The potential for the Stirling engine to compete on a technical and cost basis within each class was then estimated using a numerical ranking system. Stationary systems, where cost, weight, size, and variable speed parameters are usually not important, were shown as potential applications, but these were not necessarily large fixed applications. The Department has sponsored research on Stirling heat pump and Stirling solar fixed applications and continues to sponsor research on the solar application.

Question: Why, now that a large private company has offered to participate in the cost-shared development of a Stirling powered irrigation system, does the Department oppose such an effort; is it simply a matter of expense?

Answer: The Department is not aware of a private company offer to participate in the development of a Stirling powered irrigation system. However, even if such an offer were made it is doubtful that an activity in that area would fall under the mission of the Office of Conservation, and certainly not under the Automotive Propulsion Program.

## Ceramic Engines

Question: Also under the Automotive Propulsion Program the Department has spent more than $100 million on the development of two advanced gas ceramic turbine engines. The FY 1989 request would reduce that effort to one research contractor or team. Is there any indication that the two lead contractors, Garrett Corporation and General Motors, would be willing to join forces to form a single project team?

Answer: The cooperation between the two lead contractors has increased dramatically during the last two years. In the present work, a unique arrangement has been established where the prime contractors coordinate the selection of ceramic components to be developed and the determination of U.S. ceramic suppliers to participate in the development. Test data and development results are shared. Both contractors are also cost sharing twenty percent. The present program is essentially a single-project format in practice, and there is no indication that Garrett Corporation and GM would have problems working as a team.

Question: Of the $10 million appropriated for ceramic turbine engines this year and the nearly $5 million requested for next year, what percentage will be obligated for the fabrication of ceramic parts, and what percentage would be used to operate the basic test rigs in FY 1988 and a single test rig in FY 1989?

Answer: In FY 1988, 50 percent of the total contract funds will go to develop and fabricate ceramic components, 20 percent to characterize ceramic materials, 20 percent to design ceramic components, and 10 percent for rig testing. In FY 1989, 50 percent of the total contract funds will go for development and fabrication of ceramic components, 20 percent for ceramic materials characterization, 5 percent for component design, and 25 percent for rig testing.

Question: What progress are the two ceramic engine contractors and their subcontractors making in commercializing ceramic technology?

Answer: Although the commercialization of ceramic technology in gas turbine engines is several years off, much of the technology developed under the gas turbine program and the supporting ceramic technology development program is being used by industry for more near-term applications. Ceramic wear parts, bearings, valves, cutting tools, and parts for contempory engines are now being commercialized by industry using the technology base developed under the DOE programs.

Question: What would be the benefits of continuing two contractors?

Answer: If two contractors are continued, different ceramic processing techniques and materials can be developed in parallel, allowing for some reduction in technical risks and the potential for reducing the time frame for eventual commercialization.

## Steel Initiative

Question: Will the activities noted in the budget justification, that is: scrap beneficiation, near net shape casting, etcetera, use the entire unobligated balance remaining for the Steel Initiative?

Answer: It is anticipated that proposals will be funded in all these areas. However, only one project - development of superplastic steels - is currently active. Successful proposals for other work will likely require the remaining unobligated balance; given proposal review and procurement times, however, available funds will not all be obligated until late in FY 1989.

Question: What activities have been proposed by the industrial consortium for FY 1989 and what would be the unfunded requirement if these activities were to be undertaken?

Answer: We assume that "industrial consortium" refers to the American Iron and Steel Institute (AISI). AISI has recently conducted an extensive analysis of world-wide steel-making technologies. At least one proposal, and perhaps more, may result. However, no proposals have been submitted yet by AISI. If DOE were to fund an AISI proposal this year, remaining unobligated funds would be used to get the work started.

Question: How are new Steel Initiative projects selected and what is the mechanism for enforcing the overall cost-sharing requirement for the program when cost-sharing levels vary from project to project?

Answer: Proposals which have been submitted for Steel Initiative funding are being reviewed with respect to a variety of criteria. These include:

- The potential for a significant reduction in steel manufacturing costs or significant improvement in product value.

- A critical review of existing and emerging technologies which would be competitive with that proposed.

- Industry cost-sharing commitment.

- An estimate of the total R&D costs required to reach the stage at which Steel Initiative funding would no longer be required.

- Statements of proposed project objectives, schedules, spending plans, milestones, and decision points.

Proposals will be funded which are responsive to the legislation, meet the criteria established by DOE, and are determined to be technically sound by means of a peer review process.

In an effort to generate new proposals, DOE has prepared a Steel Initiative Research Plan, which identifies targets of opportunity for research and development. This Plan will be sent to steel manufacturers, equipment suppliers, universities, and others with a possible interest in steel research. We will be publishing a Notice of Program Interest seeking research proposals for Steel Initiative funding.

Steel Initiative legislation requires that industry provide cost sharing, totalling at least 30% of DOE funding, for the overall program. As a practical matter, the only way to assure this happens will be to require at least 30% cost-sharing for each project funded. If some early projects have more than 30%, then later projects could have less, with 30% still being achieved overall.

Question: Why is the Armco-Westinghouse strip casting program included in the justification as part of the Steel Initiative?

Answer: To date, the Armco-Westinghouse project has not been funded by the Steel Initiative program. The key activities chart for FY 1988 was intended to indicate that this program is not currently part of the Steel Initiative.

Question: Is this project being managed as part of the Steel Initiative?

Answer: No, the Armco-Westinghouse steel strip casting project is not being managed as part of the Steel Initiative.

Question: What is the status of the Armco project and what would be the FY 1989 funding requirement to continue this project?

Answer: Using $800,000 from FY 1987 appropriations, DOE funded Armco/Westinghouse to continue developing a thin strip casting process for low carbon steels. This work commenced in January, 1988, and should be completed in September. At that time, a decision on process scale-up will be made, based on determinations of economic and technical feasibility.

## Building Systems

Question: What is the status of the assessment of the U.S. Building Materials Industry? When will the assessment be completed; what are the preliminary results and how will the DOE use the information gathered in the assessment?

Answer: The U.S. Building Materials Industry Analysis project began on March 30, 1988. This is a multitask project and this first task is to develop the project work plan. This is scheduled to be completed in April 1988. The assessment will be completed by April 30, 1989. Preliminary results do not exist because this subcontract is less than a month old.

Question: A number of ongoing foundation research activities (page 360) are not funded in FY 1989. Which activities will be terminated prematurely, and how will these be brought to a useful conclusion within the FY 1988 funding?

Answer: With current budget priorities, we are transferring responsibilities for continued building foundations research to industry and others. Industry and DOE had developed a Research Agenda, published in 1987, through an Industry/DOE Building Foundations Research Review Panel (comprised of representatives from U.S. and Canadian industry, government agencies, and universities). The research issues affect industry in areas of high priority to them. Thus it is plausable that continued support could be expected from industry and others such as the non-DOE members of the Panel.

Question: When will the Roof Research Center be operational, and which companies have agreed to participate in the Center?

Answer: The Large Scale Climate Simulator (LSCS) is now operational as an environmental chamber. The system is undergoing calibration and should be fully operational by October 1988. While solicitations continue with industry for its support and participation to use the LSCS, no firm commitments have been received to date. However, industry has participated in the use of the Roof Thermal Research Apparatus. Participants are W.R. Grace, the Koppers Co., AGR Industries, Insulated Roof Contractors, and the National Concrete Masonry Association. Discussions for use of the facilities are under way with the following organizations: Dynatech Scientific, CBI Industries, Apollo System, Inc., and the University of Hawaii.

Question: What is the total value of equipment for the Roof Research Center which is expected from industry? Have there been any offers of equipment from industry?

Answer: The Center is already operational for performance of limited simulated environmental tests. Industry is being requested to help defray the costs of platform construction and facility operation for both the LSCS and the RTRA.

Question: Will the Center be operational without the equipment?

Answer: The Center is now operational for environmental simulation testing. Additional equipment may be required to perform special testing by industrial participants. Participants with special test requirements will be required to pay for the additional equipment.

Question: Would you please cite the legal authority for the operation of this DOE user facility which will be outfitted and funded in part on a cooperative basis with non-Federal entities?

Answer: The following two legal authorities are the basis for designating the Roof Research Center as a DOE User Facility: "Atomic Energy Act of 1954," as amended, which authorizes the Department to establish prices and charges for nuclear materials, and other related materials and services that are sold or provided by the Department and; U.S. DOE Order 2110.1 Pricing of Departmental Materials and Services. Chapter 3, Section 10. "Research facilities such as accelerators and light sources ... are built by the government with the express purpose of being available for the performance of research by a broad community ..." and subsection (a) "... In the event of dedicated use ... the user will be charged for costs to operate the facility."

Question: Why does the FY 1989 request propose to phase out the Roof Thermal Research Apparatus?

Answer: Due to funding constraints and program priorities, the Roof Thermal Research Apparatus (RTRA) is being phased out. Many of the tests that currently are performed in the RTRA could be transferred to the Large Scale Climate Simulator or could be performed by the private sector.

Question: Why is research on window materials proposed for termination in FY 1989; are there no additional materials to be studied?

Answer: Window materials research has progressed to the point where further research can be left to the private sector window industry for continuation and product development. Our research has shown that advanced window concepts can provide net energy benefits in most areas of the United

States, and that these concepts can also provide significant economic benefits to home owners and commercial building enterprises. Additional advances in window materials, which can be accomplished by the private sector, include: "superwindow" technologies such as evacuated glazing and krypton filled windows; and very durable, high performance (low-emittance) coatings such as titanium nitride and diamond-like clear carbon coatings.

Question: How does the thermal performance of state-of-the-art windows compare with that of the surrounding walls?

Answer: Today's state-of-the-art windows provide thermal resistances (R-values) up to R-9 compared to wall resistances ranging from R-11 to R-23. When one considers the solar thermal heat gains through windows, the current state-of-the-art windows can provide a net energy benefit even for north facing windows in, for instance, Madison, Wisconsin. Advanced "superwindow" technology research shows promise of providing windows with R-values up to R-12.

Question: Is there nothing more that could be done to raise the performance of windows?

Answer: Window performance could be raised by the implementation of a procedure to accurately measure window thermal performance. This technical capability is currently being developed by LBL.

Question: Can the development of the joint DOE/ASHRAE Solar Heat Gain Methodology be completed within funds provided in FY 1988? If not, what is the funding requirement and time period necessary to finish the effort?

Answer: The work funded in FY 1988 will not complete the joint DOE/ASHRAE solar heat gain methodology. Completion of that technology would require additional direct funding of $80,000 per year for two years. This research must draw heavily from other fenestration technology research at LBL. Since this other research is being curtailed under the proposed FY 1989 funding, a total of $160,000 per year would be required to complete this effort.

Question: Funding for indoor air quality drops sharply in the FY 1989 request. Specifically which activities within this program are being deemphasized?

Answer: Due to budget constraints, priority considerations, and varying degrees of technical maturity of research projects, several elements of DOE indoor air quality, air infiltration, and ventilation research are being deemphasized. Elements being deemphasized include: interagency effort to develop and validate an indoor air quality model; development and validation of a simplified multizonal infiltration and ventilation model; and scale model research on forced convection flows in multizonal enclosures. The level of effort on the remaining activities will be curtailed to accommodate the proposed funding level. None of these deemphasized or curtailed research activities are being pursued in other elements of DOE's building systems research programs.

Question: Why are no funds requested to continue the interagency effort to develop an indoor air quality model and to continue related laboratory and field tests?

Answer: The interagency effort to develop an indoor air quality model and its subsequent validation is not considered to be as high a priority as some of the other work in this area of research (e.g., radon characterization and mitigation studies). While discontinuance of DOE participation in this activity will result in some stretch-out of milestone accomplishments, other organizations are expected to continue to support it.

Question: What is the status of the feasibility study and conceptual design of the whole building system integration laboratory?

Answer: Work on the feasibility study was initiated on March 25, 1988. An assessment is under way to establish what building systems integration research topics need to be investigated in a laboratory setting, what sort of capabilities such a laboratory would need to have, and how such research can be conducted in the most cost effective manner. A technical review committee of industry, academic, and government researchers and administrators has been formed to advise and assist with the study. The technical review committee met in Washington, DC April 5-6, 1988, to review an assessment of research needs and suggest additions, deletions and priorities.

Question: When will the design be completed?

Answer: The current schedule calls for the feasibility study. A conceptual design will be completed by October 1988 only if it is found that the laboratory is economically and technically feasible.

Question: How much could be used for the detailed design of this facility in FY 1989?

Answer: This information will not be known until the feasibility study is completed.

Question: Why are no funds requested for commercial building retrofit research?

Answer: The Department believes that the private sector can adequately address the energy issues in commercial buildings. Within the constraints of the conservation budget, commercial buildings were placed in a lower priority ranking than existing multifamily buildings.

## Building Equipment

Question: Why are no funds requested for Stirling engine powered heat pumps in FY 1989?

Answer: For the Stirling engine driven system, research progress in FY 1987 and FY 1989 has resulted in the initial efficiency goals being met in laboratory tests of the engine-transmission-compressor system. Principal remaining technical issues now include design/cost, durability, and controls. Research and development to resolve these issues falls within the typical product development cycle of private industry.

Question: What advances have been made by Brookhaven National Laboratory in high efficiency oil combustion technology and why is the research not continued in FY 1989?

Answer: During the past two years, Brookhaven National Laboratory has made the following advanced in the area of oil combustion technology: (1) developed new control strategies to eliminate long-term degradation of seasonal efficiency; a low-cost system was devised that can monitor oil combustion systems and either signal the homeowner that a tuneup is necessary or automatically make adjustments to maintain efficiency; (2) characterized existing venting technologies and identified and tested alternative, direct-vent approaches capable of providing 5-15% improvement in seasonal efficiency; (3) identified modifications to existing oil burner technologies that significantly reduce soot emissions; sooting in oil-fired combustion systems degrades seasonal efficiency, especially in systems that are not maintained regularly, as is often the case; Brookhaven National Laboratory performed tests and evaluations of several strategies to reduce or eliminate soot emissions; and (4) completed initial evaluation of an advanced air-atomizing burner concept; this burner concept, based on an atomizing principle used in medical equipment, allows operation at very low heat output rates, which have the potential to increase seasonal efficiency in modern energy-efficient housing.

### Community Systems

Question: What is the status of the solicitation for district cooling assessments by approximately ten communities? How will these communities be selected?

Answer: The solicitation requesting proposals for district cooling assessments is currently being processed by DOE Headquarters Procurement and should be distributed on or about April 25.

Communities will be selected for award based on consideration of the technical ranking, cost, geographical locations, size of the community, and types of district cooling technology opportunities.

### Technology Assessment and Transfer

Question: Please describe for the record your participation with the Electric Power Research Institute in their demand-side information service project funded under the Least-Cost Utility Planning Program.

Answer: The DOE Least-Cost Utility Planning Program (LCUP) has identified enhanced technology transfer as one of its four major goals. We are seeking to achieve this goal by accelerating the information exchange among utilities, State public utility commissions, DOE and its laboratories, customer groups, and organizations composed of all of these entities.

The Electric Power Research Institute (EPRI) is initiating a major technology transfer activity called the Demand Side Information System (DSIS). The DSIS will focus primarily on providing information to member utilities. DOE has received a proposal from EPRI requesting a grant of $100,000 to expand its information transfer interactions with non-EPRI utilities, regulatory commissions, DOE and its laboratories, and consumer groups. Furthermore, the DOE funds would accelerate the DSIS expansion.

EPRI has allocated $1.5 million to its DSIS effort. The supplementary funds sought from DOE would provide partial support for production, on an accelerated schedule, of an end-use thesaurus that will be of value to all participants in least-cost planning from experts to the uninitiated.

The thesaurus will contain a compendium of terms, definitions and synonyms used in the utility industry in end-use technologies and demand-side management. The thesaurus will also describe many technical features of the DSIS information service in terms understandable to all potential users. Finally, it will contain up-to-date names of contact people in the industry associated with demand-side activities.

In addition, the DOE funds would provide partial support for planning of arrangements under which other EPRI information on demand-side planning would be made available through a multi-nodal information system composed of EPRI, DOE and other organizations disseminating demand-side information to their members and subscribers.

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## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Steel Initiative

Question: Since FY 1986 Congress has provided $13.2 million for what is commonly known as the "Steel Initiative." This research program was designed to develop innovative technology that enhances the competitiveness of the U.S. steel industry in international markets. These funds were to be matched with an industry cost share expected to total at least 30 percent in FY 1988 and have an eventual payback of 1 1/2 times the Federal investment from the proceeds of commercialization. It is my understanding that the initial exploratory effort in one major area of effort is technically promising. The American Iron and Steel Institute, however, felt the project was too risky for industry investment. Can you briefly explain where this program is going and what will be industry's role?

Answer: DOE's Office of Industrial Programs is working with research organizations and steel companies on a program which effectively develops innovative technologies. DOE has analyzed selected process areas within steel manufacturing to determine those which merit consideration for research and development. Opportunities for "leapfrog technology" have been assessed and will be included in a forthcoming Steel Initiative Research Plan. Comments sill be solicited on this Plan, which will be updated periodically to reflect recommendations from both private industry and other government organizations.

One project - research and development on superplastic steels - is currently funded and proceeding. This program is being carried out primarily at Lawrence Livermore National Laboratory, but will also be accomplished in part at industrial facilities. The goal of the project is to demonstrate the feasibility for commercial production and fabrication of superplastic steels. North Star Steel Company, Ladish Company, Inc. and Caterpillar, Inc. are industrial cost-sharing participants.

Several proposals are being considered for funding. Proposals currently under review include:

- A near net shape casting proposal from Idaho National Engineering Laboratory.
- A scrap beneficiation proposal from Carnegie-Mellon University.
- An ore reduction proposal from the Bureau of Mines.

We understand that the American Iron and Steel Institute is considering a proposal in the area of steelmaking. DOE has also prepared a Notice of Program Interest, which will be published soon as part of stepping up efforts to obtain research proposals which merit funding.

Industry will have a critical role in successfully accomplishing Steel Initiative programs and objectives. DOE encourages industry participation in proposal preparation by research organizations and does not expect to fund any project under the Steel Initiatitve without industry cost-sharing participation.

Question: Do you anticipate carrying over any funds into FY 1989?

Answer: Yes. Current unobligated amounts, over $9 million, will be sufficient to fund approved projects through FY 1989. Additional funds are not needed in FY 1989 for the Steel Initiative.

Question: Does industry apprehension of success relate only to this particular research area or to the entire project?

Answer: The steel industry recently indicated continuing support for the Steel Initiative. In testimony before the Subcommittee on Energy Research and Development of the Committee on Science, Space and Technology, U.S. House of Representatives, on March 10, 1988, Frank W. Luerssen, on behalf of the American Iron and Steel Institute (AISI), confirmed AISI's commitment to the basic concepts of the Steel Initiative. Both AISI and non-AISI companies are participants in the superplasticity project currently underway at Lawrence Livermore National Laboratory. Also, industrial support for two projects currently in the review process indicates a growing base of support from the steel industry.

Question: What do the national labs see in this particular area that industry does not?

Answer: Presumably national labs see opportunities for: challenging research; contributing to industrial competitiveness; and additional R&D funds if laboratory results reach commercial practice. Industry's primary objective is lower cost production. If successful, the Steel Initiative will achieve the objectives of both laboratories and industry.

Question: Why should DOE proceed if the industry isn't particularly interested?

Answer: There would be no reason to proceed without industry interest and participation.

Question: Would more industry support the program if the cost share were lowered to 25 percent or 20 percent?

Answer: DOE does not think that lowering the cost-sharing requirement would make the program more attractive to those in industry who are seriously committed to advancing technology. Industry's support is more likely a function of factors such as quality of specific research projects and the ability to protect intellectual property for the benefit of cost-sharing companies.

Question: Do you feel it is appropriate to proceed without industry support?

Answer: No, it would not be appropriate.

## Alternate Brayton Cycle Heat Pump

Question: The justification indicates that in FY 1988 you initiated design of an alternate Brayton cycle heat pump for use as a chemical process recovery unit. In FY 1989 you are proposing to initiate fabrication of a prototype for this heat pump. If you proceed with this schedule, when will the testing take place?

Answer: A competitive solicitation has been held, proposals have been received, and they are being evaluated now. The plan is to initiate the design in FY 1988, to start fabrication in FY 1989 and, depending on which contractor is selected, start testing in late FY 1989 or FY 1990.

## Industrial Cogeneration

Question: No funds have been requested in Industrial Cogeneration to continue tests on the Brayton coal fired system. It is my understanding that your efforts to attract an additional industry cost share of $1.0 million have not be successful. How does the zero request in FY 1989 for this project relate to the lack of additional industry interest in the project?

Answer: There is no lack of industry interest in the project: there is reluctance to provide additional cost share. The first test period (of two) of 1000 hours is well underway. Negotiations are under way with the industry team for any changes that they may desire in the test operations or procedures for the second test period. At the same time we are attempting to increase their cost share. In any negotiation the outcome can not be predicted accurately in advance.

As of this point, the industry has not yet agreed to increase their cost share by $1 million.

## Superconductivity

Question: The efforts of your office on superconductivity research has increased significantly in recent years. For FY 1989 you have requested funds to initiate fabrication and laboratory tests of a new configuration of a magnetic heat pump using state-of-the-art superconducting magnets. Why is this a promising application?

Answer: The magnetic heat pump, especially when used in the cooling mode, has a higher efficiency at the design point, and maintains this efficiency across a wider range, than conventional industrial refrigeration units. It is smaller, does not need as many stages, and coincidentally reduces the use of CFCs.

## Wood Wastes

Question: The justification indicates that you will be initiating high rate pyrolysis for papermill sludge in FY 1988. I do not see a request in FY 1989 for continuation of this effort. Can you briefly explain this research?

Answer: This effort to extend present wood waste-to-chemicals research to other possible waste sources is exploratory and will be carried out as a short series of experiments to be interspersed among the wood waste-to-adhesives test at SERI. A limiting factor is the availability of equipment now used successfully for wood waste-based adhesives development. The equipment to be used is the high rate vortex pyrolysis reactor developed by SERI, now successfully producing test quantities of oils for adhesives. If the tests on papermill sludge in FY 1989 show promise of yielding high valued chemical precursors (oils, gases), funds will be requested to continue this work in FY 1990.

Question: Don't papermills currently use a large percentage of their waste?

Answer: Papermill wastes can be categorized as bark and wood residues and sludges from wastewater treatment. (Spent pulping liquor is regarded as an internally generated fuel--which also yields pulping chemicals for re-use.) Bark and wood residues are customarily burned for steam generation. Sludges were in the past discharged to waterways, e.g., rivers, but are now landfilled. Current data show that a small percentage of sludge is used for fuel. The remainder offers an opportunity to realize a high value, as chemical precursors, by pyrolytic conversion to oils and gases. An estimated heat value, based on conservative assumptions, is 20 trillion btu per year. Total embodied energy would be at least two times this as substitutes for petroleum-based chemicals.

Question: Do you anticipate completing this test in FY 1988?

Answer: For FY 1988, $1,000,000 is budgeted to define experimental procedures for laboratory and pilot scale tests. Sample sludge from cooperating papermills will be identified. The test program experiments will occur in FY 1989, as discussed above.

Question: In FY 1987, FY 1988, and FY 1989 you have requested funds for the development of adhesives derived from wood waste for use in the wood products area. How has this research evolved over these three years?

Answer: Accomplishments thus far include successful experimental processing and optimizing runs of the pyrolysis reactor to produce batches of adhesives and to conduct supporting tests and analyses. Adhesives tests are conducted at cooperating wood industry laboratories. An industry panel periodically reviews the research and provides liason with the cost-sharing industrial laboratories. The panel has expressed a high opinion of the processing results and overall desirability of the R&D. A feasibility study indicates attractive profitability.

Question: What is the goal of the research?

Answer: Plywood and particleboard require large quantities of phenol-formaldehyde and resorcinol-formaldehyde resin thermosetting adhesives--now derived from crude oil. One and a half billion pounds of these adhesives are consumed annually. Lignin from waste wood (bark, sawdust, and kraft papermill residues) could provide a substitute source of phenol for the resins. The objective of the project is to develop an adhesive production and use system for the wood products industry, based on wood waste, to replace oil-based adhesives. These adhesives must be equal to or better than present oil-based adhesives in terms of performance and process characteristics, e.g. sufficient strength and short press cure time. The wood industry energy saving potential is 0.08 quad based on 50% market penetration. Work continues on preparing larger quantities of adhesives for full-size plywood and chipboard cost-shared tests, development of catalyst systems to reduce cure times, and investigations of other uses, e.g. foam insulation, casting resins, and protective coatings.

## Industrial Process Efficiency

Question: The FY 1989 request for Industrial Process Efficiency is 55 percent below the FY 1988 enacted level. This reduction is essentially made up of a reduction of $6.8 million in the "Steel Initiative" and a $1.2 million in Separations Research. The justifcation seems to indicate that the reduction in Separations Research eliminates the experimentation on black liquor properties. What is the status of the 15 ton per day black liquor gasification test unit?

Answer: Champion International Paper Company and Rockwell achieved initial success in a small molten salt test unit not originally intended for black liquor gasification. However, no proposal to scale up the gasification test program to a 15 ton per day unit has been received by DOE.

Question: Is private industry not interested in this research?

Answer: Interest in the black liquor gasification program has been indicated by foreign companies. However, Champion International is attempting to assemble a consortium of U.S. companies to join DOE in scaling up this endeavor. It remains unclear that they will be successful in doing so.

Question: The FY 1989 request for Technology and Information Transfer indicates a reduction of $400,000 from the FY 1988 level of $900,000. This reduction will only allow this program to publish and distribute essential topics and support critical workshops. How much of this decrease is from the Small Business Innovative Research (SBIR) program?

Answer: None of this decrease is from the SBIR program.

Question: Has the research in the Industrial Energy program been promising? If so why have funds not been requested for technology transfer?

Answer: Research in the area of industrial energy conservation has been very promising and the associated technology transfer has also been effective. However, with a reduced budget in the area of research and development there is a corresponding decline in technology transfer requirements.

Question: Please provide for the record more detail (amount of written materials, number of workshops, etc...) on the workload in FY 1988 and FY 1989.

Answer: In FY 1988 approximately 90 reports, including technical reports, case studies, program summary documents and proceedings from technical meetings will be produced and approximately 14 technology transfer workshops will be supported. For FY 1989 we estimate that approximately 40 reports would be published and distributed and we would support approximately five technical workshops.

## Stirling Engine

Question: You have not requested any additional funds in FY 89 for the Stirling engine. In FY 88, you will complete the transfer of Stirling engine technology to industry and other government agencies through the loan of Mod I and Mod II engine hardware. It is my understanding that the Air Force, the Post Office and John Deere have considerable interest in this engine for fleet applications. Can you describe this interest?

Answer: The interests of the Air Force and the Post Office in Stirling engine technology are essentially the same--alternative fuel capability, improved fuel economy, potential for reduced maintenance, and reduced emissions. John Deere's interest is in becoming a manufacturer of the Stirling engine should it become commercially viable, particularly for fleet users.

Question: What plans do those agencies have with respect to the Stirling engine?

Answer: The Air Force is conducting an evaluation of a Mod II Stirling engine installed first in a van and later a pickup truck. At the end of the evaluation, being carried out at several bases, a report will be prepared for future considerations. The Postal Service is supplying a new postal van as the test vehicle for the Mod II vehicle tests.

Question: Will additional research enhance those agencies interest in the engine?

Answer: Since the proof-of-concept Stirling engine program will successfully demonstrate the developed technology, additional research is not required to enhance customer interest. What is required is cost and reliability data and information from a manufacturer which meets their user needs.

Question: Have these other agencies spent funds to test the auto?

Answer: The Air Force has not spent any funds directly on the evaluation effort. They have supplied drivers and record keeping services and the vehicles. All engine installation and engineering support activities are supported by the Stirling program. The Post Office has not spent any funds on the program except for the supplying of the postal van. John Deere has been a paid subcontractor under the Stirling proof-of-concept effort, but has spent some modest company funds in supplying sample castings and evaluating the Air Force van.

## Automotive Gas Turbine

Question: You have requested $5.0 million in FY 89 to continue ceramic component development of the Automotive Gas Turbine. As in previous years, you have requested funds for one industry contractor rather than the two which have been funded in the past. Do you disagree with industry on the need for two industry teams?

Answer: Although two industry teams would enhance the participation of ceramic suppliers and more rapid development of ceramic components, one industry team will allow the meeting of program objectives.

Question: In FY 88 you requested $4.0 million for one industry team while in FY 89 you have requested $5.0 million for one industry team. Is there something additional in the program you will accomplish in FY 89?

Answer: The FY 1988 request covered an estimate of the start-up costs for one industry team. The $5 million request for FY 1989 covers the estimated costs for a full year of established program work by one industry team.

Question: What is the cost to fund two industry teams?

Answer: The government cost to fund two industry teams would be $10 million. Each contractor would add 20 percent cost share to the total expenditures.

### Federal Methanol-Fueled Vehicles

Question: In FY 87, FY 88, and FY 89 you have requested funds to continue data collection and analysis on Federal methanol-fueled vehicles. How long do you anticipate data collection will be necessary? What kind of data do you collect and is it published?

Answer: The data collected relates to operational aspects in accordance with the Congressional guidelines associated with the original funding. The data primarily include fuel economy, driver reactions, and maintenance and are compared to those of counterpart gasoline-fueled vehicles. Exhaust emissions are tested at selected intervals to determine durability of the emissions control systems. It is desirable to continue the limited data collection and analysis for the normal life of the vehicle within the Federal system. Analyses and reports are made annually on each of the three fleets. The reports are widely distributed.

### Synthetic Fuels

Question: In FY 89 you are proposing to initiate investigations of basic combustion phenomena to existing engine types to establish fuel/engine features for efficient use of minimally upgraded synthetic crudes. Has any similar research been conducted in this area?

Answer: The research on combustion phenomena recognizes that the problems associated with reducing the energy requirements, processing, and cost in upgrading or refining synfuels are fundamental to the engine design. The goal of the proposed work is to allow use of fuel with reduced specifications, such as lower octane, lower cetane, and lower volatility, while avoiding increased problems with exhaust emissions. Very limited research has been conducted in this area, primarily within the DOE Alternative Fuels Utilization Program, and analysis of this prior work has shown that combustion phenomena are the key parameters for efficient use of synfuels. The planned work in the area has been expanded to recognize this fact and need.

Question: Can you describe the research plan?

Answer: The work breakdown structure includes research activities focused on combustion chamber configuration, preparation and introduction of fuel into the cylinder, ignition and burning of the fuel, and influences of fuel chemistry.

Question: Why are you requesting an increase in this area and decreases nearly everywhere else?

Answer: The request for work in this area has been increased to achieve a level required for effective and efficient research and development in a technology area which will have a major impact on future utilization of alternative fuels.

### INEL Dynamometer Testing

Question: Please provide for the record the amount necessary in FY 89 for the dynamometer if Congress restored the Vehicle Propulsion R&D to the FY 88 level.

Answer: Operation of the dynamometer laboratory at INEL in FY 1989 will require $2.4 million to test new battery systems and the dual-shaft (DSEP) and single-shaft (ETX-II) a.c. electric propulsion systems developed in the DOE R&D program, and the General Motors G-Van that is being introduced into field tests by the Site Operators' Users Task Force. This funding includes all testing and test support activities but does not include management of R&D subcontracts at INEL.

## Multi-Sector

Question: You are proposing a 17 percent decrease to $24 million FY 89 for the Multi-Sector program. The majority of this decrease is to come from the Energy Conversion and Utilization Technologies program. This program supports longer-term, higher-risk, generic, applied research and exploratory development which is necessary to assure the availability of an adequate technology base that will enable a substantial increase in the efficiency of future energy conversion and utilization systems and the use of non-petroleum fuels. While the Multi-Sector funding decrease is 17 percent, you have requested a decrease of 58 percent in the number of FTE's (from 19 in FY 88 to 8 in FY 89). In a broad sense, why are you are proposing such a large decrease in the ECUT program that essentially starts in motion the rest of your research efforts?

Answer: The ECUT program addresses generic issues of interest to two or more of the end-use programs, such as combustion, high-temperature materials, and biocatalysis. It is not the driver of the other programs or the source of all their research. The decrease results from overall budget constraints and is much less than the decreases proposed for the end-use programs.

Question: Why such a large decrease in the FTEs as compared with the smaller overall program decrease?

Answer: Actually the number of FTEs requested for Multi-Sector is fairly consistent with the level of past requests and reflects the best allocation of FTEs within the over Energy Conservation FTE ceiling in the FY 1989 request.

## Building Materials

Question: The FY 89 budget for research on chlorofluorocarbon appears to go from $1.2 million in FY 88 to $300,000. Is that accurate?

Answer: The FY 1988 funding of $1,200,000 and the requested FY 1989 funding of $300,000 are for the entire materials research activity, including research on chlorofluorocarbon substitutes. In FY 1988, Congress allocated $400,000 out of a total of $1,200,000 specifically for research on CFCs. For FY 1989, $200,000 out of a total of $300,000 requested for building materials research is intended to be used for CFC research.

Question: What is the adequate amount to spend in this area?

Answer: DOE believes that the requested $300,000 funding for materials research, of which $200,000 will be used for research on CFC substitutes, is adequate.

Question: Is another agency picking up this research?

Answer: Other organizations, including the major producers of refrigerants and foaming and blowing agents are expected to conduct the research required to develop suitable substitutes for CFCs in this application. The Environmental Protection Agency (EPA) is active in CFC issues. However, the primary areas of concern to EPA are environmental and regulatory impacts of CFC use and restrictions. EPA is planning to spend $30,000 at the Massachusetts Institute of Technology where DOE is co-funding CFC research on foam insulation together with the Dow Chemical Company and Mobay Chemical Company. Other companies are expected to fund research as required to maintain their market positions in this area.

### SUBCOMMITTEE RECESS

Senator **Bumpers**. Thank you. We'll stand in recess subject to the call of the Chair.

[Whereupon, at 11:03 a.m., Tuesday, April 12, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, April 14.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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THURSDAY, APRIL 14, 1988

U.S. Senate,
Subcommittee of the Committee on Appropriations,
*Washington, DC.*

The subcommittee met at 10:10 a.m., in room SD–138, Dirksen Senate Office Building, Hon. Harry Reid presiding.

Present: Senator Reid.

## FRANKLIN DELANO ROOSEVELT MEMORIAL COMMISSION

### STATEMENT OF HON. BILL GREEN, SECRETARY

### ACCOMPANIED BY HON. CARL LEVIN, MEMBER

#### PREPARED STATEMENTS

Senator Reid. The subcommittee will come to order.

This is the time scheduled for the subcommittee to review the fiscal year 1989 budget requests for the Franklin Delano Roosevelt Memorial Commission, the National Gallery of Art, the Commission of Fine Arts, and the Advisory Council on Historic Preservation.

We will begin with the Franklin Delano Roosevelt Memorial Commission. The President's fiscal year 1989 budget request for the Commission's operations is $28,000, the same as the current year.

We welcome to the subcommittee Bill Green, one of my former colleagues. Senator Levin is on his way down.

Congressman Green is testifying as Secretary of the Commission.

I certainly welcome you here. Your complete statements will be made part of the record.

[The statements follow:]

## STATEMENT OF HON. BILL GREEN

My name is Bill Green, and I represent the 15th Congressional District of New York in the United States House of Representatives. I appear here today in my position as Secretary of the Franklin Delano Roosevelt Memorial Commission. We regret that, for reasons of health, the Chairman of the Commission, Honorable Eugene J. Keogh, cannot be here today. I request that his statement be included in the record of the hearing. The members of the Memorial Commission wish to thank you for this opportunity to report on the status of the proposed memorial to Franklin Delano Roosevelt and to request appropriations which will permit this proposed memorial to become a reality.

Let me first present a brief review of the Memorial Commission and its activities. PL 372, 84th Congress, approved August 11, 1955, established the Franklin Delano Roosevelt Memorial Commission and assigned the Memorial Commission the responsibility of overseeing the construction of a permanent memorial to Franklin Delano Roosevelt in the City of Washington, D. C. PL 97-224, signed July 28, 1982, approved the memorial designed by landscape architect Lawrence Halprin and authorized its construction. The memorial will be constructed in West Potomac Park on a site authorized in 1959. The memorial is designed as a landscaped garden which has evolved from the concept of portraying multiple images of President Roosevelt. The result will be a series of garden spaces linked by a continuous granite wall. The wall will provide the element upon which the sculpture and the quotations are to be displayed. Since water was an extremely important element in the life of President Roosevelt, it will be included as a major element in the memorial in the form of waterfalls, pools, and runnels.

In 1983 Congress appropriated $950,000 to be used for the completion of the final preliminary plans and construction drawings. In 1984 the National Park Service, on behalf of and under the supervision of the FDR Memorial Commission, entered into a contract with Lawrence Halprin to prepare the final preliminary plans and construction cost estimate. This work has been completed. Of this $950,000, $317,342 remains available for the development of construction drawings for site preparation work and for quarrying the granite. The National Park Service feels these contracts should not be negotiated until such time as some construction funds for the memorial are appropriated by the Congress.

To permit the FDR Memorial Commission to continue its assigned work, the Memorial Commission requests your approval of the $28,000 to cover operating expenses as contained in the FY 1989 budget submitted by the Administration, and requests an appropriation of funds sufficient to cover the construction of the memorial to Franklin Delano Roosevelt as authorized in PL 97-224.

The Commission is composed of twelve members, who serve without compensation, and it maintains a one-room office with one staff member. The Memorial Commission's request for housekeeping funds to the Office of Management and Budget was for $29,000, but OMB cut this to $28,000. The requested $28,000 is an extremely modest amount. These funds are necessary for the Commission to be in a position to supervise the progress being made toward completion of the memorial, to maintain its limited facilities, to conduct its routine matters of correspondence and administrative work, and to keep the Congress informed of the hopes for the long-sought funds necessary for the completion of the memorial. As you are aware, the appropriations for operating expenses during the past few years have been minimal and there will be no carry-over worthy of mention. Needless to say, the Commission necessarily operates in a very penurious fashion. I urge the members of the Committee to act favorably on this small request, and on our request for construction funds.

The National Park Service now estimates the cost of construction of the approved memorial design at $35 million. Since 1982 when the design of the memorial was approved and construction authorized, the FDR Memorial Commission has been requesting from the Administration and the Congress an appropriation to cover the construction cost. As you are aware, this appropriation has not been forthcoming. The Memorial Commission urges that you act now to make these funds available. There should be no further delay. An appropriation of even $5 million would permit some forward progress. The National Park Service feels at least this amount should be available before further contracts are let and construction begun.

Why should we have this memorial to Franklin Delano Roosevelt? There are many, many reasons but I will point out only a few. The people of this country elected FDR as our President four times, his record of service will never be matched. Our country needs an appropriate memorial to him in our Capital city where the citizens of this nation and our visitors from around the world can feel the presence of Franklin Delano Roosevelt -- as an individual and as the creator of the many programs which led our country from a devastating depression to prosperity and who guided us successfully through the largest war the world has ever known. He served until his death when victory was close at hand. This memorial is needed to bring the architectural history of this great nation up-to-date. The Washington Monument, the Jefferson Memorial and the Lincoln Memorial tell our people the story of these great men and their deeds. The story of FDR needs to be told here in similar form -- to tell the history of our country from March 4, 1933, until April 12, 1945.

I am pleased to announce to you that the FDR Memorial Commission now has a full complement of members. On December 20, 1987, Senator Alfonse M. D'Amato of New York was appointed to the Memorial Commission to fill the vacancy caused by the retirement of Senator Charles McC. Mathias, Jr. We are pleased to have Senator D'Amato join us.

You, the members of the Appropriations Committee, can move this project forward by granting our modest request. We are anxious to move ahead and beseech your favorable action on our requests for operating funds for the Memorial Commission and construction funds for the Franklin Delano Roosevelt memorial.

## STATEMENT OF EUGENE J. KEOGH, CHAIRMAN

My name is Eugene J. Keogh and I submit this statement in my position as Chairman of the Franklin Delano Roosevelt Memorial Commission.

For many years it has been my privilege and pleasure to appear before the Appropriations Committees on behalf of the FDR Memorial Commission. I deeply regret I am unable to be with you today. However, the Memorial Commission will be ably represented by Representative Bill Green of New York. I request that this statement be submitted for the record.

I understand that Representative Green will present a brief summary of the history of the FDR Memorial Commission, a report on the status of the proposed memorial, and the requests of the Memorial Commission for an appropriation to cover operating funds for the Commission and an appropriation to cover the actual construction of the memorial to Franklin Delano Roosevelt. I would like to address myself now to the importance of building this memorial without further delay.

There are many worthy projects on the planning board but this memorial to our late President Franklin Delano Roosevelt should be assigned the highest priority. He ranks among our greatest Presidents, but his memorial has not been built. The people of this country voiced their support for him by electing him President four times. He brought our country out of the most devastating depression it has ever suffered. He gave the people faith and hope, without which our country has no future. He initiated programs and plans which guaranteed a better life for all our citizens. We are all still benefiting from these programs. They have helped guide our nation to its present status of the greatest in the world. He was confronted with leading our country during the Second World War. He did not falter -- he inspired us and led us to victory. A few of us here have a personal recollection of these events, but our younger citizens and those yet unborn deserve the opportunity to see depicted the events from 1933 to 1945 and to feel the magnetism of the leader during those years. The proposed memorial will accomplish this purpose. During the debate in the House of Representatives on authorizing the memorial, it was described by Representative Claude Pepper as "... this beautiful memorial to symbolize in our Capital that imperishable spirit, that noble man and friend, that genius of democracy, Franklin Delano Roosevelt".

The Memorial Commission remains determined to continue its efforts to obtain the appropriation of funds which will permit this drean of an adequate and appropriate memorial to Franklin Delano Roosevelt to become a reality. The

Congress has voiced its approval of the proposed memorial. The Congress owes this memorial to our country and should move forward now in appropriating the necessary funds. If the Congress determines to meet this obligation I have confidence in your ability to locate the funds. I urge that you turn your attention toward serious consideration of attaining this goal and make available the monies which will permit construction to begin. Just say "Yes". I urge an appropriation of $35 million, the current estimated cost predicted by the National Park Service. If not this amount, appropriate at least $5 million, which the National Park Service feels is essential before further steps should be taken toward beginning construction of the memorial. I implore you to appropriate the necessary funds that this memorial may become a reality.

I wish to take this opportunity to thank the members of the Appropriations Committee and the staff for the courtesies and considerations and support extended to the Memorial Commission through the years. I would like also to acknowledge the cooperation we have received from officials in the Executive Branch, especially those in the National Park Service whose assistance has made it possible for the proposed memorial to have reached its present status, and I want to recognize the untiring interest of the members of the Memorial Commission in attaining our goal of a completed memorial to Franklin Delano Roosevelt.

The FDR Memorial Commission appreciates your inviting us to appear before you, and I again urge your favorable action on the appropriations we have requested to cover operating expenses and construction of the memorial.

## STATEMENT OF SENATOR CARL LEVIN

Mr. Chairman: This is a sad day for all of us who are involved in the work of the Franklin Delano Roosevelt Memorial Commission. Our chairman, Eugene J. Keogh, has just advised us that he is stepping down from the chairmanship because of ill health.

Fortunately, he will remain a member of the Commission which he has served for so long with such distinction. In his letter of resignation, Congressman Keogh says that his work as chairman has been "a labor of love." He also says that his "devotion to the cause of an adequate and appropriate memorial to our late, great President, Franklin Delano Roosevelt, remains unshakable." We share that commitment.

As you know, it has now been 33 years since the 84th Congress established the FDR Memorial Commission and assigned the commission with the responsibility of overseeing the construction of a permanent memorial to President Roosevelt in Washington, D.C. It has been seven years since the 97th Congress approved the design of the memorial and authorized its construction. Nevertheless, 43 years after FDR's death, construction of his approved memorial has yet to begin.

As a member of the FDR Commission, I wish to endorse its request for $5 million which the National Park Service has called "essential" if it is to perform the final site preparations prior to construction. I also support its request for $28,000 for housekeeping funds for the Commission itself.

I would like to spend a minute or two on the necessity of building this memorial to FDR. I don't believe that any member of this committee would argue that President Roosevelt is not deserving of a major memorial in Washington, D.C. Every poll of American historians since 1945 has ranked President Roosevelt among our five greatest Presidents, right up there with Washington, Jefferson, Lincoln, and Theodore Roosevelt. Like those great Presidents, FDR should be honored with a monument in this city.

I know that there are those who say that a monument to any individual--even one as great as FDR--is an unnecessary extravagance in an era of staggering deficits. There are also those who say that President Roosevelt himself indicated that a marker on one of the outer walls of the National Archives was the only memorial he desired.

I take some issue with both of those points. It is, of course, true that we live in difficult economic times and must take care to guard against unnecessary or frivolous expenditures. But a monument to a President is neither.

I believe that a Franklin Roosevelt memorial will strengthen American values and lead to a greater understanding of the national purpose. An FDR memorial, reminding Americans--and especially younger Americans--that FDR confronted and prevailed against both economic depression and Nazism will help galvanize Americans for some of the tough battles that we face today.

I also mention the fact that Roosevelt was handicapped, an aspect of his life that only adds to the power of his memory to inspire us. How much is that inspiration worth in dollars? I cannot say. But I do know that it is a precious commodity and one we sorely need now.

As for FDR's own stated preference for the modest National Archives marker, that demonstrates that FDR himself was a modest man. However, I want to point out, as I have in the past, that FDR himself strongly supported the construction of the Jefferson Memorial. He asked for funding for that memorial during the depression of the 1930's. It was built during World War 11, completed in 1943. Our current fiscal difficulties, while indeed significant, should not stop us from doing what Americans were able to do during the Great Depression and World War 11.

That is why I urge action now. At this moment we need a reminder of the spirit that this Nation can and has demonstrated to meet challenge. FDR is a symbol of that spirit and of the accomplishments it can produce. Mr. Chairman, the FDR Memorial should be built now.

### CHAIRMANSHIP OF THE COMMISSION

Senator REID. At this time, tell us what you want us to hear.

Mr. GREEN. Thank you very much, Mr. Chairman.

In view of your placing the full statement in the record, I will comment informally.

First, let me apologize on behalf of the Chairman of the Commission, the Honorable Eugene J. Keogh, for not being here today. Unfortunately, for reasons of health he can't be here and indeed is in the process of resigning as Chairman of the Commission. However, I am happy to say that he will be staying on as a member of the Commission so that we shall still have the benefit of his advice and his great enthusiasm for this project.

### STATUS OF THE FDR MEMORIAL

We have a site which was approved in 1959, and we have a design which was approved by Public Law 97–224 in 1982. Pursuant to that legislation, which also authorized the construction of the memorial, Congress in 1983 appropriated $950,000 to be used for the completion of the final preliminary plans and construction drawings.

Pursuant to that appropriation, final preliminary plans and a construction cost estimate have been completed, and $317,342 remains available for the development of construction drawings, for site preparation work and for quarrying the granite for the wall, which is part of the design for the park-like area which will be included in the memorial.

However, the National Park Service feels that the remaining $317,000 should not be expended until such time as Congress or someone on the private side makes at least initial funds available to begin the construction of the monument. My understanding is that they would like to have something on the order of $5 million appropriated or given to get the project started before they would want to make that final expenditure for us to begin the construction work.

### REQUEST FOR CONSTRUCTION AND OPERATING FUNDS

As you know, just about the time we got these approvals and this initial appropriation from the Congress the roof fell in with the Gramm-Rudman-Hollings legislation. Since that time neither the administration nor the Congress has been willing to provide the appropriation to start the construction work, and indeed all that OMB has approved for us to come to you with today is $28,000, which, as you point out, is the same as last year.

The Commission would hope that the Congress would see fit at least to make the initial appropriation of $5 million so that we can get on with the work. Since Congress has clearly indicated its desire that this monument be completed by passing the authorizing legislation and making the initial appropriation of $950,000, it would seem appropriate that we now move ahead.

Certainly no one can question that Franklin Roosevelt is one of the major figures in American history. He served as President first during probably the most difficult time economically that this country has had to deal with and then during the largest war it has ever had to deal with. Certainly Franklin Roosevelt is a towering figure in the history of the United States and of the world in the 20th century and deserves larger recognition here in Washington than he has been given to date.

## MEMBERSHIP OF THE COMMISSION

One final word. I am happy to announce that the Commission now has a full complement of members. On December 20, 1987, Senator Alfonse D'Amato of New York was appointed to the Commission to fill the vacancy caused by the retirement of Senator Mathias.

We ask this subcommittee to appropriate the $28,000 requested for our operating expenses. Essentially we have a one-person staff and a one-room office. But we should also ask the subcommittee to permit us to move ahead. It would, as I said, take $5 million to get us started and enable the construction process at long last to get started.

Senator REID. If your time permits and you could wait, it would be appreciated. We have a couple of questions.

Mr. GREEN. By all means.

Senator REID. Senator Levin, we welcome you to the subcommittee and look forward to any statement you wish to make.

Senator LEVIN. Thank you very much, Mr. Chairman.

It is a pleasure to be here with Congressman Green on a very important mission. This memorial was in effect authorized 33 years ago. The particular design was approved 7 years ago. A lot of time has passed. The time has come to act in a way which I think most of us in good conscience believe we should do, which is to finally have a fitting memorial here for a President that is on every list of great Presidents by every historian.

Senator REID. Your full statement will be made part of the record, Senator Levin.

Senator LEVIN. I will be very brief and sum up just two points, Mr. Chairman.

## REASONS FOR BUILDING THE MEMORIAL NOW

Why spend this money now in the middle of a deficit situation? This has got to be the question which all of us are asking. The answer is, FDR symbolized that you can overcome challenges. He was the President during a depression; he gave us inspiration to beat it. He was the President during World War II; he gave us inspiration to win. Those were surely two of the greatest challenges that we have faced this century. We were able to overcome them.

Memorials and monuments to great heroes of the country are an inspiration to us. That inspiration is worth a lot of money. It is worth the cost of this monument to be reminded that we can overcome our challenges.

Personally, he overcame a challenge. This monument is designed particularly to remind us that he was handicapped. It is a handicap-sensitive monument, the way it is designed.

During that depression and during World War II FDR led the way to build the Jefferson Memorial. In the middle of a depression he proposed it and in the middle of a war it was built. It was good precedent for doing what we are asking us as a Congress to do at long last.

### REQUEST FOR CONSTRUCTION AND OPERATING FUNDS

The inspiration which this will give to millions who visit, who come to this capital and are inspired by our monuments is well worth this investment. So I would urge you to support the $5 million as well as the $28,000 in operating funds; $5 million, by the way, is the down payment on a total cost of $35 million for the monument. That is the estimated total cost of the monument, and the annual operating cost would be about $1.2 million.

Senator REID. The committee expresses its appreciation to both of you.

On a personal note, I think it is significant that you are both here, a Republican and a Democrat, speaking for something that I think important to the country.

I think you, Senator Levin, said it better than I can. I am speaking for myself, not the committee. I think we should move forward with this. We all recognize that the country is only as good as its artistic endeavors, and certainly this will be a work of art.

I also have some questions for the two of you who are more experienced in the Congress than the acting chairman of this subcommittee. Things like this always aggravate me. We know that there was $950,000 that was appropriated. There is about $320,000 of that left for development of construction drawings for the monument. But the Park Service says they don't want to spend it until there is some indication that we are going to appropriate the money for the actual monument itself. I think we should go ahead with the construction drawings, because there is no question in my mind that there will be this monument constructed. It is just a question of when.

So with whatever influence I have, I think we should go forward with the drawings for the site preparation work with that money that is already there, and then I will do what I can to make sure we get the $28,000 plus the beginning of the construction costs.

I have some other questions that I am not going to ask you, because I already know the answers.

Mr. GREEN. Thank you very much, Mr. Chairman. If the committee report should include an instruction to the National Park Service to proceed to expend that money, it would certainly be very helpful.

Senator LEVIN. It would indeed, and we would appreciate it.

Senator REID. Thank you both very much.

# NATIONAL GALLERY OF ART

## STATEMENT OF J. CARTER BROWN, DIRECTOR

ACCOMPANIED BY:
ANNE B. EVANS, ADMINISTRATOR
DANIEL HERRICK, TREASURER
WILLIAM H. ROACHE, BUDGET OFFICER

### PREPARED STATEMENT

Senator REID. We will now turn to the 1989 budget for the National Gallery of Art.

Testifying this morning on behalf of the gallery is its Director, Mr. J. Carter Brown.

The fiscal year 1989 budget request for the salaries and expenses account of the National Gallery is $38,543,000, which is an increase of $1,191,000 over funds appropriated to date for the current year. The gallery is also requesting $1 million for the repair, restoration and renovation of buildings account; no funds were approved for this purpose last year.

Again, you are welcome this morning, Mr. Brown. We have your prepared statement. It will be inserted in the record in its entirety.

[The statement follows:]

### STATEMENT OF J. CARTER BROWN

The National Gallery's Federal funds budget request for the fiscal year 1989 is $39,543,000—a net increase of $2,191,000 over the 1988 budget of $37,352,000. Comprising the total increases are: personnel compensation and benefits—$959,000; printing and reproduction—$7,000; materials, supplies, and services—$365,000; repair, restoration, and renovation—$1 million. The increases are offset by a decrease in rents, communications, and utilities—$140,000. The budget includes 878 full-time permanent positions with an OMB limitation of 847 FTE—full-time equivalent—employment, and does not project any increased staffing in fiscal year 1989.

Attendance at the National Gallery has been at a high level in recent years. In fiscal year 1987 the attendance was 6,986,465. The primary reason for this continued high attendance has been attributed to the enthusiasm of the public for our special exhibitions such as the Matisse, Suleyman, and Andrew Wyeth exhibits.

Forty-three percent ($1 million) of the total increase is requested for the repair, restoration, and renovation of buildings program approved by OMB and included in the President's budget for fiscal 1989. This overall program includes the National Sculpture Garden and sculpture galleries, environmental work, energy management, remodeling to better utilize existing space, new lighting systems in public galleries, and general repairs. In fiscal year 1988 the gallery has begun the preparation of a master plan for use of its buildings which will include the fiscal 1989 expenditures described above.

Forty-one percent ($959,000) of the total increase is associated with personnel compensation. This increase provides: $318,000 for mandatory within-grade and wage-board step increases and merit pay; $498,000 for annualization of the fiscal year 1988 pay raise: $73,000 for increased costs of workers compensation; and $70,000 for annualization costs of six new positions approved in fiscal year 1988.

Sixteen percent ($365,000) of the total increase is needed to cover additional quantities and increased costs of materials, supplies, and services in support of the basic gallery operations. This amount consists of $272,000 for services and $93,000 for supplies and materials.

The remaining amount ($7,000) of the total increase is for increased costs of information booklets, calendars of events, gallery leaflets, extension service catalogs, and other printing.

Offsetting the above increases is a decrease in rents, communications, and utilities of $140,000.

The 1989 Federal funds budget request also includes $2,420,000 for our special exhibitions program at the same level as the preceding 2 years.

## INTRODUCTION OF ASSOCIATES

Senator REID. It would be appreciated if you introduce your associates and give us a brief description of the gallery's activities, and then we have some questions we would like to ask.

Mr. BROWN. Thank you, Senator.

I am delighted to have with me here the Treasurer of the National Gallery, Daniel Herrick; the Administrator of the gallery, Anne Evans; and our Budget Officer, Bill Roache.

## OPENING REMARKS

Last year was another banner year for the gallery. Attendance was about 7 million, which we believe is a record for any art museum in the world that year.

We have had a very lively interest in the gallery, not only in Washington, but, I think it should be emphasized, around the country. We have an extension service by which we circulate educational materials to all 50 States and 4,000 communities. This continues to grow in popularity.

In terms of acquisitions, we have been very fortunate. I should stress here how lucky we are to have had donors provide these. A very beautiful Madonna and Child by an extremely important and rare 15th century Flemish artist, Dirck Bouts; contemporary art by the recent American painter, Barnett Newman, who died in 1970 but has taken a great position in the history of art; a gift of some $3.5 million made that possible, and many others.

What I would like to stress about the acquisitions of the gallery is that they are a partnership operation. The National Gallery receives funds from the Congress, but it does not receive any funds for acquisition of works of art from the Congress. This means that the priceless collection that is here representing the United States on the Mall is all the result of private generosity, as are in fact the two buildings that house them.

This means that we build a kind of a partnership. As we go along, we entice the private sector to give these irreplaceable works of art on the basis that they will be cared for by the U.S. Government as part of the agreement that was reached between the Congress and the original donor. The system has worked beautifully, and we are very grateful to the Congress for the kind of seed money that allows this multiplier effect to take place, whereby the American people benefit by works of art worth billions on the basis of a pledge from the Government of appropriations at the levels that we are talking about.

Finally, in the exhibition area we have had great interest. The Georgia O'Keeffe show that just closed was one of our most popular, and we will now circulate it throughout the country. This artist who represents so much of the impact of the American West has become a great heroine to America in general.

We are about to open perhaps the most important exhibition in recent memory, the most comprehensive show ever devoted to the work of the post-impressionist Paul Gauguin. The Soviet Union has had an unprecedented role in helping us on a cooperative basis with an international show, and the loans come from around the world.

The other shows coming up this spring come very quickly after that. Two exhibitions are devoted to American artists, Fitz Hugh Lane and Childe Hassam. The Hassam show focuses on his American flag paintings, and will be a great patriotic exhibition. Then one of the most important museums in Europe, Munich's Alte Pinakothek, is lending some of its greatest treasures this spring.

In the fall we will celebrate Venice with a retrospective of one of its greatest artists, Veronese. We will celebrate Michelangelo and we will celebrate Japan with a whole festival. The Japanese show will include not only great objects, perhaps the most significant show ever loaned from that country, but also performing arts, a tea ceremony, including demonstrations that people can participate in, and construction of a Japanese garden inside the National Gallery. All of this will happen largely thanks to funds that have been raised from the private sector.

Senator REID. I would like to open the questions by noting that the National Gallery does a tremendous job in its presentation of the world's finest art treasures in a manner that makes them accessible to millions of visitors not only from our country, but from the world over. You and your staff are to be complimented on the variety, composition and presentation of the exhibitions at the gallery.

Having said those nice things, I still have some questions for you.

### VISITORS

Last year the gallery projected about 5.3 million people would visit the exhibitions here in Washington. The budget request indicates, however, that almost 7 million people actually toured the gallery buildings last year. What is this dramatic 32-percent increase in the visitation level attributed to?

Mr. BROWN. It is always very hard to predict, Senator, how many will actually come. We try to be conservative in predicting to you what the attendance will be. We never know if an exhibition will take off or when tourist patterns in the country bring more visitors to Washington than expected.

We had had such a banner year the year before, when we broke our own records with over 8 million visitors. We knew the reason for that, because we had the Treasure Houses of Britain show at the same time as the Impressionism show, at the same time as the Winslow Homer watercolor show, and we had an extraordinary influx of visitors.

But, this last year, I was down at the gallery over Thanksgiving. On the Friday after Thanksgiving we had 65,000 visitors in one day, which is a lot of people to fit into the amount of square feet we have in those buildings. I can say that we were wall-to-wall people. It wasn't dangerous, but we were at capacity. It is, I think, quite reassuring that the American public seems to want to continue to come to places like the National Gallery, and the trend seems to be up.

### NATIONAL SCULPTURE GARDEN

Senator REID. I have a few questions about the proposed sculpture garden and the related indoor galleries. Congress has made $3 million available for the design and construction of the garden. I think that is right, isn't it?

Mr. BROWN. That is right.

Senator REID. How much has been obligated to date for the sculpture garden?

Mr. BROWN. I think it is $86,000 so far that we have in fact spent.

Senator REID. There has been some slippage in the construction schedule; is that right?

Mr. BROWN. There has indeed. I would like to try to explain this to you, Senator, because it relates to the point that I was making about this rather elaborate mating game that goes on in our field in which we try to entice the private sector into giving works of art worth many times what we ask our Federal sources to provide. We have undertaken in a joint agreement with the Park Service to develop this into a national sculpture garden that we will somehow provide with sculpture. We are not in a position to go out and buy a collection of sculpture, but we do have a rather prestigious site and a rather wonderful opportunity for a donor or a group of donors to provide the works of art.

I have every confidence that that kind of magnetism will be effective to the extent that our track record since 1941 has filled our two buildings, 1 million square feet, with fabulous works of art on the same basis.

The donor that we have particularly in mind is, I think, very interested. It turns out that he is so interested that he wants also to be involved in the design phase. That will mean that perhaps some of the preliminary design works we have done so far will have to be reviewed. He has in mind another candidate for a designer to come in to help with this. So all of this has resulted in a kind of slippage.

What we are asking you to do, if you could, is to bear with us during this process. Rome was not built in a day.

What is so useful to us in going out and soliciting private donations is the sense that Congress is behind this idea. This will be a great national amenity. Over 23 million visitors a year came to The Mall; the future scultpure garden is right there at the foot of the National Archives, the home of our Declaration of Independence, and right next to the National Gallery. So if we can rock along for the next couple of years with the sense that we do have enthusiasm and support on the Hill for it, I think that will lever out an extraordinary collection of sculpture.

Senator REID. The new estimate for the work is now $7 million; is that right?

Mr. BROWN. We have tried to update our preliminary estimates to our best ability. We have to recognize that these are quite speculative. We have revised the agreement with the Park Service. In the early days they were going to be doing the work. It is, after all, Federal money one way or the other. We felt that it would be perhaps better if the components of the sculpture garden devoted to art presentation were actually under some kind of unified supervision. So under the new agreement these funds will now be channeled through the gallery.

Senator REID. I don't understand why the cost has almost doubled from the original estimates.

Mr. BROWN. We are not really too sure what the cost will be. I think rather than doubled it has been consolidated, the parts that the Park Service was going to do and the parts that we were going to do. I think even consolidating probably has gone up somewhat as we have begun to get more specific about questions like handicap access, drainage, how you handle security, and so forth.

I can understand that from the Congress' point of view you don't want a lot of surprises. Neither do we, and for this reason, although we are not asking for $6 million or $7 million at this stage, we do feel it is only fair for the out years to give you some early warning as to what we think the parameters will be. That is our best judgment. We see no reason why it should exceed that.

Senator REID. Has the gallery already made an award for the design contract?

Mr. BROWN. It hasn't. We have for the preliminary design. That is going forward. For the reasons I mentioned, it now looks as if there will be considerable donor interest in the design process. That is only fair.

Senator REID. That is what you were talking about previously?

Mr. BROWN. Exactly

Senator REID. I understand.

Why would the entire estimated increase of $3 to $4 million be required in fiscal year 1990 as indicated in the justification?

Mr. BROWN. The $3 to $4 million would be required in order to issue a contract with a construction firm/general contractor for completion of the sculpture garden construction.

Senator REID. Is there any assurance that you can give the committee that the current estimates for design and construction are firm?

Mr. BROWN. To the best of our knowledge and ability, I think that that is all any of us can do. Luckily we haven't been in a period of rampaging construction cost escalation. We have lived through those in the past. That is what happened to us when we built the east building with some $100 million in private funds. We hit the steepest part of the curve of the Engineering News Records construction cost index in its history. If American fiscal management continues as it has, with some rein on inflation, we don't see that happening.

### ENVIRONMENTAL WORK

Senator REID. You requested $80,000 to remove PCB's from electrical transformers and to encapsulate some of the asbestos insulation in the building as well. This is in the west building. How is that coming along?

Mr. BROWN. I can report, happily, Senator, that the PCB part has been done.

Senator REID. The asbestos isn't done?

Ms. EVANS. It is continuing.

Senator REID. Has there been a completion of the survey relating to the asbestos in the entire building itself? Previously we were only talking about a part of it.

Ms. EVANS. Senator, we are in the bid process with a survey, having decided that the initial bids that we saw were too high. We have gone back and reevaluated our approach and are now going once again into the bid process for that survey and expect to have someone working on it within the next couple of months.

Senator REID. How much has been obligated to date to encapsulate asbestos insulation on National Gallery property?'

Ms. EVANS. From 1982 to the present about $995,000 has been obligated to pay for contractors to encapsulate or remove asbestos. Additional encapsulation has been done by members of our engineering staff who have been properly trained and equipped with protective gear. However, we have not tracked these internal efforts in monetary terms.

Senator REID. What is your present estimate of the cost by year to remove the remaining asbestos?

Ms. EVANS. As yet, we do not have a firm estimate of the cost to remove the remaining asbestos, since our survey of the asbestos situation is just beginning. Once completed, the survey will provide a much better basis for estimating these costs. Through the survey we expect to gain a complete list of all remaining asbestos locations, the sequence in which they should be addressed, and the manner in which each should be treated, for example, removal versus encapsulation. However, our rough estimate now is that we will obligate approximately $150,000 per year for 5 years, assuming that most areas can be encapsulated and that little actual removal of asbestos will be required.

Senator REID. Is any of the asbestos in gallery areas accessible to the public or in work areas frequented by the staff?

Ms. EVANS. We believe there are no areas where we allow staff or public access that might possibly have harmful asbestos levels in the air. There are approximately five fans rooms and adjacent areas that have friable asbestos in them that would be harmful to touch and that, on occasion, engineers must enter to make repairs or do maintenance work. Even in these rooms, the air does not contain harmful quantities of asbestos. Since, however, it would be harmful for the engineers to come in physical contact with the asbestos itself, the engineering staff has been trained in, and is being reminded frequently of, the hazards of asbestos and the harm it could do them if touched.

The gallery is abiding by OSHA regulations in cordoning off any hazardous areas, posting warning signs, informing staff, requiring disposable clothing and protective equipment, et cetera in areas where asbestos has been discovered and is loose enough to pose an immediate hazard. We currently have one example of this in the ceiling crawl space above the rotunda. When we have any suspicion of the presence of asbestos, we immediately limit staff access, sample the air and surfaces for asbestos, and require protective gear for anyong entering the area.

At present the areas we believe still contain asbestos are mainly in the crawl spaces above the west building ceilings. The ceiling material, based on recent tests, does not appear to contain asbestos. Rather, some of the pipes and ductwork above the ceilings had been insulated with material containing asbestos that is beginning to degrade. Nevertheless, recent tests of the air in rooms recently renovated have not shown any hazard, despite the fact that asbestos was found above the ceilings.

Senator REID. Please provide a copy of your asbestos survey for the subcommittee files.

Ms. EVANS. We would be happy to upon completion.

Senator REID. Last year's justification assumed that $340,000 would be obligated in fiscal year 1987 for mitigation of these environmental hazards. However, only $136,000 was actually obligated for this purpose. If these hazards are particularly serious, why are the removal and encapsulation efforts being stretched out?

Ms. EVANS. Since we do not have any immediately hazardous areas in which staff must work or that affect the public, we decided in early 1987 to reassess our procedures for compliance with the recently updated and more stringent OSHA guidelines. Therefore, we only obligated funds necessary to perform encapsulation in areas posing an immediate hazard because of renovation projects in those areas—for example, ceilings being removed et cetera.

Our policy is to follow the OSHA guidelines, and to ensure that we are capable of doing so, our chief operations manager has attended a training course and been certified to deal with asbestos problems. He is personally overseeing the asbestos survey, the purpose of which is to ensure that we do know precisely where any remaining asbestos problems are and that we develop a full, formal plan, as OSHA requires, for addressing those problems. Once the survey is completed, our abatement efforts will be stretched out only to the degree necessary to ensure that the work is done safely, systematically, and thoroughly, and can be paid for.

### RENOVATION

Senator REID. Overall projects for the repair, restoration and renovation of buildings assumed that $3,221,000 would be carried forward into fiscal year 1988, or last year. In fact, however, $5,334,000 was carried forward, or $2 million more than the request originally assumed. It appears that the bulk of this additional money is being directed toward remodeling activities which were not included in the original fiscal year 1988 justification. Would you describe the high priority projects which this money would be used for?

Mr. BROWN. Let me just say that conceptually when we get to the renovation budget, of course, we are dealing with a different kind of animal in that this is basically no-year money. So to the extent to which we can carry forward funds from the previous year means that we can do projects that are needed but which we were not able to get to.

We have to mention that in this current budget request the OMB cut back $1.4 million out of what we had wanted. We do have—and it doesn't show in your justification—a very long list of projects that are urgently needed by virtue of the original building now coming to a period of its age where a lot of attention is needed for it.

In addition, our programs have grown, our staff has grown, and there is much internal remodeling that needs to be done.

I would like to call on our administrator to speak specifically to the projects.

Ms. EVANS. Senator, in 1989 the requested funding is designated for five major projects. Those include work stations in the lobbies of the east building. There are a number of work stations on each floor. There are two separate lobbies per floor. Those are very important as reception areas but also as places where we have computer work stations. They are not currently set up for that and need to be in order to keep our use of computers as efficient and as neat and tidy as possible.

The second item is the concourse buffet and cafe refurbishing. That area is 10 years old, as is the rest of the east building, but it receives probably more concentrated wear than any other location, and I am afraid it shows. We are in the process of looking at replacing that floor and also some of the wall coverings which have become stained and worn.

Graphics arts modifications. We have the index of American design, which is a wonderful collection which we are seeking to house more effectively so that it can be accessed by individuals who wish to study it. So we are redesigning the storage facility so that it can be accessed, and we are accompanying that with a study room.

In the education office modifications, the staff in education is growing. That is an area which we are increasingly putting an emphasis on. We are trying to redesign their work space so that there is enough room for the people who are in those spaces.

The other office modifications are various and sundry. They include some modifications to the personnel area because of the growth of the computerization of their activities and a number of varied other small projects.

Senator REID. What was scheduled in 1988 that's not being done?

Ms. EVANS. Priorities of the 1988 program have shifted somewhat since our budget submission. In category A, remodeling, we expect to obligate approximately two-thirds of the funds initially set aside for fiscal year 1988.

Of the list of remodeling projects provided on page 5–14 a number have been completed, or we expect will be completed, by the end of the fiscal year. They include: the initiation of our program for replacing worn carpeting in the east building; the consolidation and improvement of the silkscreen studios; construction of a new auditorium stage and improved seating for the small auditorium; consolidation of the tapestry storage; rebuilding of deteriorating exterior exhibition signs; conversion of a music office into art storage space—part of item 2. Note that further investigation into the music office's needs has caused us to cancel plans for moving their offices, but we will proceed with the renovation related to a music library.

However, due to delays in relocating some of our storage offsite, a number of other projects have been delayed, including conversion of the publications and supply storage spaces into art storage and offices; the conversion of the west building publications and supply storage spaces into storage for a variety of other onsite storage needs; and expansion of horticulture laboratory spaces.

With the death of one of the gallery's architects, we experienced some delays in other projects that had been begun in 1987. The major delays were in the work for the conservation and photo laboratories, the index of American design, and the green room. Therefore, these efforts have continued during fiscal year 1988. Additionally, we have undertaken a few projects, including an expansion of the west building publications shop and improvements in guard locker and office areas, that were not reflected in our initial plans for fiscal year 1988.

In category B, environmental work, we do expect to obligate very close to the amount planned. However, at present we expect only approximately $26,000 of the national sculpture garden funds, category C to be spent in fiscal year 1988. Very likely all of the funds in category D, energy management, will be spent, as will the category E, funds for lighting.

Senator REID. Please provide for the record a detailed explanation and justification of all the projects that will be conducted within the $1,982,000 programmed for remodeling activities in fiscal year 1988.

Mr. BROWN. We would be happy to.

[The information follows:]

## DETAILS OF FISCAL YEAR 1988 RENOVATION PROGRAM

The proposed program for 1988 is a continuation of the 1987 renovation program. However, we plan a major acceleration of the remodeling program to improve the efficiency and effectiveness of the Gallery facilities. Remodeling projects and their justifications are listed below.

### A. STORAGE RELATED PROJECTS

Explanation/Justification

We are moving publications, supply and other materials not needed on a daily basis to an offsite location in order to put the Gallery's space to the most productive use and, perhaps most important, to free up additional art storage space that conforms to the Gallery's climate and security standards. A number of planned FY 1988 projects are being done to make use of spaces freed by the use of the offsite warehouse. These projects are listed below.

| | | Estimated Cost |
|---|---|---|
| 1. | Conversion of publications and supply storage spaces along the Connecting Link into art storage and offices. | $1,000,000 |
| 2. | Conversion of West Building supply storage space into painting and graphics frame storage, music program storage, and publications storage. | 250,000 |
| 3. | Conversion of West Building publications storage spaces to art storage. | 80,000 |
| 4. | Expansion of horticulture offices to create a design laboratory for preparing floral displays currently purchased from outside vendors. | 30,000 |
| 5. | Consolidation of tapestry storage and departmental offices to adjust for presence of new Armand Hammer Collection galleries in former tapestry storage areas. | 20,000 |

### B. WORK AREA IMPROVEMENTS

| | | |
|---|---|---|
| 1. | Conversion of music offices into art storage; and relocation of music program offices and library near the relocated site of weekly concerts. | 300,000 |

Explanation/Justification

At the time the Budget submission was prepared the Gallery expected to permanently change the concert location to the west garden court (away from the east garden court). Under that scenario it was important for the music program's support facilities to be located close to its concert space. However, a reevaluation and subsequent developments in the exhibition program made it clear that the music program must remain flexible, with concerts being given in both garden courts. Therefore, the project to move the music offices has been cancelled. Nevertheless, improvements in the music library remain necessary in order to convert a substandard storage area serving as a library into a space that would allow the music librarian to work with the music materials in the library space. Finally, the art storage needs of the Gallery are steadily increasing as the collection and exhibition programs have grown. A space previously used for storage of music stands etc. has proved usable as art storage space and has been converted to that use.

| | |
|---|---|
| 2. Consolidation and improvement of silkscreen studios. | $70,000 |

Explanation/Justification

An inadequate ventilation system and the time lost due to the great distance between the 2 silkscreen studios has made it sensible to consolidate and improve these studios.

| | |
|---|---|
| 3. Initiation of program to replace badly worn carpeting throughout the East Building. | 100,000 |

Explanation/Justification

The East Building's 10th Anniversary is in 1988 and the carpet, which has seen very heavy wear, is becoming bare, spotted and frayed in some areas. In order to keep with the Gallery's role in upholding a standard of visual excellence it is important to replace this carpet.

| | |
|---|---|
| 4. Other minor improvements as necessary to meet functional needs of Gallery departments. | 82,000 |

Explanation/Justification

From time to time a minor change in work area structure is necessary to either accommodate more people, new computers or a change in work approach. These projects involve such activities as adding shelves, cutting a door, removing a dividing wall, etc. We undertake such projects to promote better productivity and to keep working conditions up to a reasonable standard.

C. PUBLIC AREA IMPROVEMENTS

| | |
|---|---|
| 1. Construction of a new stage and improved seating for the small Education Auditorium. | 30,000 |

Explanation/Justification

A new stage for the main auditorium is needed to better accommodate the variety of formats now seen in the Gallery's programs, including small lectures, demonstrations, performing arts, etc. To improve the comfort of the public seating in the small auditorium we are adding cushions to the carpeted amphitheater-style step seating.

| | |
|---|---|
| 2. Rebuilding of deteriorating exterior exhibition signs. | $20,000 |

Explanation/Justification

These outdoor signs are made of wood and painted and therefore weather very poorly. The maintenance costs, and the quickly deteriorating appearance make it desirable to have new signs constructed in a more durable material of lasting beauty, possibly stone or bronze.

Apart from the planned FY 88 projects mentioned above, some additional remodeling efforts have been undertaken in FY 88, including:

1. West Building Publications Shop Expansion

Explanation/Justification

The design of the West Building Shop has been proving unworkable with several parts of the store cut off from easy public access. This renovation was undertaken to make the shop more accessible to and more easily understood by the public.

2. Guard Office Modifications

Explanation/Justification

Changes are being made to provide a safer, more secure and more workable area for checking in and out weapons and keys, etc.

3. Guard Locker Room Improvements

Explanation/Justification

The conditions in these locker rooms had deteriorated to the point at which some upgrading was necessary to maintained reasonable standards of cleanliness and order for the many male and female guards. Also, the fact that the silkscreen renovation was in progress created an opportunity to convert one of the former silkscreen spaces and its adjacent area to improved locker room areas. Therefore, this year seemed to be a sensible time to proceed with this effort.

## ADDITIONAL COMMITTEE QUESTIONS

Senator REID. There will be some additional questions that we are going to submit to you for your response in the record.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

# ADDITIONAL COMMITTEE QUESTIONS

## OMB REDUCTIONS

Question: What was your original request to the Office of Management and Budget, and did OMB make any significant reductions in the amount that you believe is necessary to operate efficiently?

Answer: Our original budget request to OMB was $41,186,000. The significant reductions OMB made were: $1,400,000 to our Repairs, Restoration and Renovation of Buildings; $235,000 funding for eight new positions; and $195,000 for full Federal funding of the Gallery's Sunday concerts. We believe that a $400,000 cut in Repairs and Renovation (in lieu of the $1,400,000) would be more reasonable and allow the Gallery to operate more efficiently than would otherwise be the case. Similarly, the Gallery would benefit from a 50% reduction in new positions in lieu of the 100% OMB made.

## NATIONAL SCULPTURE GARDEN DONATIONS

Question: Two years ago there were great hopes for a major donation of sculpture that would serve as the centerpiece for this garden. As I recall, those hopes were dissolved by a reversal in the donor's portfolio caused by a down-turn in petroleum markets. I understand that there are now a number of other potential donations under negotiation. What is the likelihood that these donations will be realized?

Answer: We think that the major donor we have particularly in mind is very interested. He has been involved in the design phase of the National Sculpture Garden and his art is now on a tour of major European cities. We continue to negotiate the possibility of one or more gifts from this donor, and are working on other possible donors as well.

Question: Is their possible donation jeopardized by the severe drop in the stock market last fall?

Answer: We don't really know what impact the severe drop in the stock market last fall will have on possible donations. (We have found the new tax laws relating to appreciated property a greater deterrent.) However, the major donor is still interested.

## WATER AND SEWER COSTS

Question: It is the subcommittee's understanding that the Gallery is expected to budget for its own payment to the District of Columbia for water and sewer services in FY 1989, however, no such costs appear to be included within the request; is that correct?

Answer: That is correct. No funding was included in the Gallery's FY 1989 Budget due to an administrative oversight by OMB.

Question: What is the estimated cost to fund these requirements next year?

Answer: Water and sewer costs for the National Gallery of Art for FY 1989 are estimated at between $1,455,000 to $3,510.00. The estimate consists of two parts: $250,000 for water and sewer usage as measured by the Gallery's four water meters; and from $1,205,000 to $3,260,000 for sewage costs resulting from the Gallery's air conditioning water disposal measured on a separate meter. Currently the water for the air conditioning system is pumped into the Gallery from the Potomac river; the water is then pumped out into the D.C. sewer system. Using the D.C. sewer system for air conditioning discharge is costly. For that reason, the D.C. Government is in the process of building a pipeline to run this water from the Gallery to a storm sewer which discharges into the Anacostia river. Since the water doesn't need sewage treatment, this will free up sewer capacity for other use by the D.C. Government and reduce National Gallery of Art sewer costs.

The reason for the range on costs is because the D.C. Government hopes to complete the new line midway into FY 1989. However, since there is no guarantee on the completion date, our estimates of the costs are based on staying on the sewer system from between seven to twelve months in FY 1989. Ultimately, following completion of the D.C. Government work, the Gallery's water and sewer costs will amount to approximately $250,000 to $300,000 per year.

Question: How do you plan to meet these costs if they are not included in your budget now?

Answer: OMB has given some indication, despite the two year "Budget Summit Agreement of 1987" which doesn't allow for supplementals except in dire emergency, that they may put through a supplemental with the FY 1990 submission depending on the administration's policy. Not receiving a supplemental would have an unfavorable and unacceptable impact on Gallery operations. Our budget simply does not have the capacity to absorb the $1.5-$3.5 million costs described above for 1989. OMB is aware of the difficulty which their oversight could impose if not corrected.

Question: When will the National Gallery have a firm estimate of the cost of these services in FY 1989?

Answer: The estimate mentioned previously is firm. The only remaining variable is the completion date of the new pipeline mentioned previously.

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### SCULPTURE GARDEN

Question: One part of the overall plan for the National Gallery of Art is the development of exterior garden display areas for works of sculpture. The first increment of this plan is the recently completed transformation of the North Terrace and Sculpture Pool area of the East Building into a landscape court (pg. 5-7).

Another increment of this plan is based on a longstanding agreement between the Gallery and the Department of Interior to jointly develop and construct the National Sculpture Garden on the Mall area adjacent to the Gallery's West Building. The justification indicates you are anticipating the possible gift of sculpture and have initiated design work for the completion of the Sculpture Garden.

Can you briefly describe how the Interior agreement was amended earlier this year?

Answer: The agreement was amended because both the National Park Service and the Gallery believed it makes sense for one of us to take the lead role. Since the selection of art for the Garden will have an impact on the design of the Garden, the Gallery seemed to be the obvious one to take the lead. Nevertheless, we plan to continue working jointly on the National Sculpture Garden design and construction.

## RENOVATION AND REPAIR

Question: How much of the $1.0 million requested for repair and renovation will be used for the National Sculpture Garden design work? Construction work?

Answer: None For either. In previously approved budgets the Gallery had already designated $2.9 million of its renovation budget for National Sculpture Garden costs. In this year's request no further funding for the National Sculpture Garden was included, since the current cost estimates are based on very preliminary drawings done in 1986, and are therefore somewhat unreliable.

Question: The justification indicates that part of the Renovation program includes remodeling for the accommodation of computer equipment. Can you describe the remodeling effort necessary for computer equipment?

Answer: Remodeling efforts related to computer equipment tend to be mainly of two types:

1. small elements of major projects which involve simply designing the area with computer equipment in mind;

2. small projects, which we group under our miscellaneous category, involving such efforts as the building of bookcase extensions to hold personal computers in various offices. Most of these small projects are very low cost and our in-house carpenter staff often handles them.

Question: How much of the $1.0 million you have requested in the Repair and Renovation account is earmarked for this effort?

Answer: The costs for accommodation of computer equipment are difficult to isolate and precisely quantify because they are either very small or are included as part of the estimates for major projects. We do not explicitly isolate those costs today since they are such a small percentage of the total, probably less than 2%.

## ENERGY USAGE

Question: The justification indicates that in FY 89 you will be implementing a comprehensive energy management program to reduce energy usage and costs. At the same time you have requested a decrease of $196,000 in FY 89 which reflects an anticipated decrease in rates charged and/or quantities used. Is the comprehensive energy management program related to the $196,000 decrease?

Answer: Most of the decrease is due to an electric rate reduction from PEPCO. The rest of the decrease is the result of some small energy management modifications as well as diligent manual monitoring of the temperature and humidity controls.

Question: Can you explain what we might expect from the energy management plan from a budgetary standpoint?

Answer: We are still evaluating this, but expect additional savings in FY 1990, particularly after the installation of the variable speed drives.

## WATER AND SEWER SERVICES

Question: Last year OMB issued Bulletin 87-9, which mandated that Federal agencies receiving District of Columbia water and sewer services should make payments directly to the District Government beginning in FY 88. Are you aware of this bulletin?

Answer: The Gallery is aware of OMB Bulletin No. 87-9 which seeks to have all Federal agencies that own property in Washington, D.C. make water and sewer payments directly to the District Government instead of the current lump sum appropriation included in the Federal payment, but no funding was included in the Gallery's FY 1989 budget due to an administrative oversight by OMB.

Question: If so, how did this bulletin impact the Gallery?

Answer: The Gallery faces a potentially large shortage of funding in FY 1989, up to $3,510,000, since no funding is currently approved or pending for these costs.

Question: If so, have the necessary budgetary adjustments been made?

Answer: No, the Gallery has not included any funds for water and sewer payments in its FY 1989 request. We did some preliminary calculations prior to our OMB submission for FY 1989, but due to an administrative oversight by OMB, the Gallery did not receive funding for the water and sewer payments and was under the impression that the lump sum appropriation included in the Federal payment to the city would continue.

## GUARD POSITIONS

Question: In the calculation for the guard positions at the Gallery, the chart indicates that the average number of days of duty per guard is 227. This figure reflects a reduction of 21 days for vacations, 9 days of sick leave and 3 days of excused holidays. I know this is only a computation for budgeting purposes but I would be curious to know if it is accurate.

Answer: We believe the calculation of the 227 average number of days of duty per guard to be accurate based on our past experience. Guards earn up to 26 days annual leave per year, and a large percentage use all the leave they accrue. In the case of sick leave each guard is entitled to 13 days; the assumption that 9 out of the 13 days will be utilized seems to be as accurate a prediction as can be reasonably made.

## NEWSPAPER AND PERIODICAL INCREASE

Question: You have requested an increase of $20,000 (+20 percent) for newspapers, periodicals, pamphlets and documents. Can you explain this increase?

Answer: As noted on pages 4-6 of our 1989 Congressional submission, the library budget for serials has remained virtually unchanged since the 1983 fiscal year and only slightly above the 1982 level. In the same period the price of serial subscriptions has increased substantially. 1983 prices were 8% over 1982; 1984 prices were 7% over 1983. Even at the current lower levels of inflation, serials prices will have increased by 33% in 1987 over the 1982 level. These are national averages; the Gallery, however, subscribes to serials in a very narrow subject area which traditionally costs more than the average due to its limited market and need for many illustrations, often in color. We have lived within our budget as closely as possible by cancelling subscriptions and refusing requests to subscribe to additional journal titles. We must also refuse opportunities to purchase runs of older journals lacking in the collection due to lack of funds. By fiscal year 1989 these expedients will be woefully inadequate and we will be forced to cancel important journals. What seems to be a large increase in the budget is really no increase over the current level of activity.

## NATIONAL LENDING SERVICE

Question: Part of the increase for Art Care is $72,000 for the National Lending Service which I believe supplies the Gallery with crates and frames. Can you describe this service?

Answer: The National Lending Service was established to make the collections of the National Gallery of Art accessible to museums throughout the United States. The Service encompasses so far over 1300 works from the National Gallery's collections, including some old master paintings and a larger number of works by eighteenth- and nineteenth-century American artists. Included in the NLS collections are:

1. over 350 paintings of American Indians by George Catlin
2. approximately 300 naive American paintings
3. modern paintings and sculpture, both European and American
4. over 175 paintings by Mark Rothko

The National Gallery of Art through the National Lending Service makes extended loans available to museums to exhibit with their collections. In order to protect and maintain the works lent, borrowing institutions must meet certain requirements for security, staffing, and environmental controls, and are required to complete a "facilities report" on their building. The completed form is reviewed for approval by the Gallery's conservation division.

Once it is determined that a museum's facilities are adequate for the protection of loans, a selection of up to five works can be made and loan approval obtained from Gallery authorities. Loans are made initially for a period of one year, with the possibility of annual renewal for up to five years. If a museum wishes to renew a loan, condition report forms for each object are sent for completion by a competent conservator. The completed reports are reviewed by the Gallery's conservation division and, if the works remain in stable condition, loans may be renewed for another year with the approval of Gallery officials.

Borrowers are charged only for the direct costs associated with a loan. These may include packing, handling, shipping, courier costs, and insurance. If renewal is requested, the borrower must also assume any costs related to the annual conservation examination. Unlike many museums, the Gallery does not charge a special fee for individual loans, nor does it charge for the administrative costs of making loans available.

Works from the National Lending Service are also lent to museums for temporary exhibitions. With the exception of annual renewal, the conditions and costs are the same as those for extended loans.

Works from the National Lending Service are lent to the Art in Embassies Program, U.S. Department of State, for display at U.S. ambassadorial residences abroad. All direct costs of these loans, including those of annual renewal, are paid by the Art in Embassies Program.

Works from the National Lending Service are available for loan to certain government officials in Washington, D.C. -- the President, the Vice President, Justices of the Supreme Court, and Members of the Cabinet. A National Gallery of Art conservator does the annual conservation examination of works lent to government officials. There are no charges to the borrowers for these loans.

Question: Is this service replacing an old service?

Answer: No, the service is being expanded to make more of the Gallery's collections available throughout the country. This is accomplished through the new special exhibition program which provides exhibitions of up to 50 works, generally in groups of 10, for periods of four to six weeks. The exhibitions are organized around a particular theme, period, or artist, but the borrowing institution may adjust the exhibition's orientation to suit the museum's particular interests and may determine exhibition size by borrowing from 10 to 50 works. Included are exhibitions of up to 50 graphic works as well as exhibitions of paintings.

The borrower is asked to bear the direct costs of a loan which may include packing, handling, transportation to and from the borrowing institution (including a courier if necessary), insurance, and certain prorated preparation costs. No participation or special loan fee is charged.

The new special exhibition program will begin in May 1988. Descriptions of exhibitions presently available are included in the our National Lending Service brochure.

# COMMISSION OF FINE ARTS

## STATEMENT OF J. CARTER BROWN, CHAIRMAN

**ACCOMPANIED BY:**
- **CHARLES H. ATHERTON, SECRETARY**
- **DONALD B. MYER, ASSISTANT SECRETARY**
- **SHARON SITA, BUDGET ANALYST, DEPARTMENT OF THE INTERIOR**

### PREPARED STATEMENT

Senator REID. We are now going to turn to the Commission of Fine Arts.

Mr. Brown, you stay where you are. This time you will be in your role as Chairman of the Commission.

I would like to express my appreciation for the presentation you gave regarding the National Gallery and to your fine associates at the table.

The fiscal year 1989 request is $451,000, an increase of $8,000.

Your statement will be included in the record. If you would introduce your colleagues and briefly summarize your statement, we will proceed with questions.

[The statement follows:]

## STATEMENT OF J. CARTER BROWN

The Commission of Fine Arts is requesting an appropriation of $451,000 for FY '89, which represents a modest increase of some $8,000 over our current level of funding. Our expenses will continue to be tight. For now, I would like to give the Committee a brief overview of the Commission's activities over the last year or so.

A lot of our time has been involved with a number of memorials authorized by Congress.

The Holocaust Memorial and Museum is making good strides toward design completion. We have met with the architects a number of times, and I'm happy to report real progress -- the Hall of Remembrance, which faces west on Wallenberg Place looks to us like a very appropriate solution. The rest of the elevations also show much promise, and all that remains are the details of the two entrance facades. Our hope is the review of the design can be completed at our meeting on the twenty-first of this month.

The Navy Memorial is nearing completion of its first phase. The statue of the Lone Sailor was installed this past Fall, and most of the architectural work on the surrounding plaza is complete. Over the coming years there are plans to add a number of bas-reliefs depicting various periods of Naval History and the variety and richness of service that has been performed over the years including the services of women. We certainly hope this will forestall any effort to have a female figure join the Lone Sailor.

As you know this has been a difficult and contentious issue with the Vietnam Veterans Memorial over the last several months, where the addition of a statue of an Army nurse has been proposed. The Commission feels the memorial was completed when the statue of the three soldiers was added in 1984 and it was conveyed officially to the American people. We feel that adding any more statues to what I believe everyone who visits there feels is an enormously powerful memorial would be a great mistake. The Commission turned the proposal down, and as a result there are a number of bills that have been introduced into Congress that would require us to rehear the issue. We will do so if the legislation passes, but with great reluctance I am sure. Our hope is that the proponents who seek to honor women veterans of the Vietnam war can be persuaded to join in a memorial to women who have served in all wars. It is a proposal authorized by Congress in 1986 and one which receives the whole hearted support of the Commission, as well as other planning agencies in Washington. It would be a much better course to pursue rather than tinkering with something so many of us feel will only suffer in the process.

In addition, during the last year, the Commission approved a design for the Armored Forces Memorial over on the approach road to Arlington Cemetery near the new Visitors Center; a memorial to Francis Scott Key on the spot where he lived in Georgetown next to what is now Key Bridge, and a site in Judiciary Square for the National Law Enforcement Hereos Memorial.

I think all of this activity points up the great wisdom of Congress in passing the Commemorative Works Act in 1986. Without it the pressure to erect memorials in this city would continue unabated, and it would be exceedingly difficult to stem the flood of new monuments that would inevitably result. We are certainly glad it is there.

The developments on Pennsylvania Avenue continue to occupy much of the Commission's time. Approved over the last several months are projects ranging from Market Square on 8th Street to two large buildings just to the east, the Carr project at 7th and Indiana and the Sigal project at 6th Street. The three projects together represent a considerable development within a relatively restricted area and demonstrates the intense interest that still exists in a somewhat cooling market in developing the few remaining parcels on Pennsylvania Avenue.

On the west end of the Avenue, the good news is that Congress has finally authorized the completion of the so called Great Plaza, that very large void which has existed for so many years right in the middle of the Federal Triangle between 13th and 14th Streets. The central program feature will be an International Trade and Cultural Center, while much of the remaining space will be divided between government offices and supporting retail uses. At the present it is very much in the initial stages, but we have high hopes for its eventual construction. If done properly it will not only rid us at long last of one of our more enduring eyesores --- the huge parking lot that has been there since the 1930's, but it will give new life to the Triangle and help provide a link between activities on the Mall and the city north of Pennsylvania Avenue.

Across the way are two building projects worth mentioning that have involved Commission review and will help to improve the Avenue --- one, the restoration of the Warner Theatre on the corner of 13th and E just now in its initial planning stages and two, the former Pennsylvania Building facing Western Plaza on 13th and Pennsylvania upon which an extensive facelift has just been completed. Both buildings are going to add considerably to the appearance of this area.

Over the last year a number of projects have come to us from other federal agencies. The Park Service has gotten approval on the pavillion for the National Sculpture Garden which is at last underway; construction has begun on installing a perimeter security system around the White House, and work was recently completed on improvements to East Executive Avenue which has been a great plus for visitors to the White House. The Zoo is right in the midst of extensive renovations to its major landscaping, and both the Navy and Army have plans for a number of projects at the Anacostia Naval Station, the Naval Research Lab, and Fort McNair -- all of them very important facilities in the general scheme of things.

In the Georgetown area, there was less in the way of large scale developments which is good news. However the diminution in size of these projects does not seem to be reflected in the amount of time we spend in looking them over. In addition to that, our faithful and hard working committee of architects known as the Old Georgetown Board goes into everything in much greater detail, and the number of hours spent in often contentious public hearings is prodigious. I might add at this point that all of their time is given at no cost to the public, in the same manner those of us on the Commission serve.

Last year we concluded our report to the Committee on our concerns for the design of coins and medals presented to us by the U.S. Mint. I am happy to report that the Mint has finally accepted the recommendations of the Commission and has held competitions for both the Congressionally authorized Olympic Coins and the commemoratives for the Bicentennial of the Constitution. We are very encouraged about these developments and hope they signal a new era of involvement for American sculptors in the designs of our medals and coins.

## INTRODUCTION OF ASSOCIATES

Mr. BROWN. Thank you, Senator.

I am delighted to have with me here the Secretary of the Commission, Charles Atherton; next to him. the Assistant Secretary, Donald Myer; and then our Budget Analyst, who was seconded to us for these purposes from the Department of the Interior, Sharon Sita.

The Commission had an extremely active year. The statement goes into some detail on the various projects, but I thought maybe to summarize I might point out the ones that are particularly salient.

It was a great year for memorials. We are currently working very closely with the Holocaust Memorial and Museum and reaching a final decision, we hope, on their design.

The Navy Memorial is now there for people to see. I think it came out extremely well.

We also had a considerable amount of controversy relating to reopening the question of the Vietnam Memorial and adding statuary to it. There is also pending in the House a bill which would reopen the question of the position of the American flag in that memorial and move it to a place which the Fine Arts Commission and, I think, the Vietnam Veterans Memorial Foundation believe would be a tremendous mistake. Sitting there like a golf tee up on the apex would really do a disservice to the American flag and certainly to the moving design of that memorial. We hope that if for some reason the other body passes such legislation we can rely on the wisdom of the Senate to make sure it doesn't get any further.

Pennsylvania Avenue has been enormously important to us as one of the growth development areas, our main street, symbolizing the axis on which the separation of powers of the 18th century reside at either end. I can report with some enthusiasm that projects along there, all of which have to come us under the Shipstead-Luce Act, have been moving briskly.

There is one very exciting one which the Congress in its wisdom has seen fit to authorize, which is the largest single remaining site along Pennsylvania Avenue, the area called the Great Plaza at the west end of the Federal Triangle, which is now an eyesore, a parking lot. This could be developed as a joint public-private undertaking, which could be a very exciting provision of office space for the Government and a national center and offices and retail for the private sector. So that is very exciting as well.

In Georgetown there has been a great deal of activity because of citizen interest—luckily, not, however, much play of large projects in that historic district which is already impacted.

Finally, I would like to speak to the success with which we have been able to work with the Department of the Treasury in advising on designs of coins and medals. They have at last seen fit to attract top talent to the process of design by offering small amounts of compensation to people who would enter in some limited competition. This was done in the past and then not done for a long time. We believe in this. We think it is important to open up these opportunities and not keep them to a strict universe of people already at the mint, as talented as many of those are. This seems to be moving well and we are pleased with the progress that has been made in that area as well.

Senator REID. During last year's hearings you discussed the Whitehurst Freeway. At that time you indicated that some Georgetown businessmen had come to you with a proposal to improve the appearance of the freeway.

Is anything going on in that regard?

Mr. BROWN. We have checked on that recently, Senator. It is very sad that that alternative proposal came, apparently, after the mayor had made up his mind to keep the freeway and to put money into refurbishing it. That project is moving forward, apparently. So we are stuck with that eyesore for a while.

There are strong arguments pro and con. It is very difficult to find the ultimate solution unless we should do what a great city planner recommended, which is simply to put a tunnel there. That would take care of it for all time. The cost attached to that is very steep. So I think we are probably stuck with living with that.

Senator REID. What about the facade if they do go ahead with the renovation of the freeway? Is there anything that could be done to improve the appearance of it?

Mr. BROWN. We have tried to inveigle them into doing a little. It will look a little better if they paint it. There is not much you can do with the structure that is there for engineering purposes. It has to accomplish something which at least has one aesthetic plus, which is that it does allow a lot of traffic to find some other way of getting out of town other than through the streets of Georgetown, through the historic district. So there are tradeoffs to having it there.

Senator REID. The 1988 Appropriation Act included $4.5 million for National Capital Arts and Cultural Affairs and transferred responsibility for the program from the National Endowment for the Humanities to the Commission of Fine Arts. There hasn't been any request for money. Would you describe how you intend to administer the program?

Mr. BROWN. I would be delighted to, Senator. When I first heard about this, and I must say it came as something of a surprise, I immediately asked our good staff here how we were going to cope with this in terms of our current staffing. Actually, on inspection we found that it is not as big a step as one might have thought. The actual responsibility was to be arrived at by the three chairmen, the Chairmen of the two endowments and the Chairman of fine arts. That has now changed. The three of us still will meet and make the final decision. It is merely the staff work preparing for that that has shifted over from the Humanities Endowment to the Commission of Fine Arts.

On inspection, it turned out the staff work is not very onerous. Grants under the law follow a very strict formula. It is merely a question of asking for these figures from the applicants. That is in process. It seems to be going very smoothly. We will have our meeting soon. So it looks as if we will be able to discharge this without having to come to you for more money to do it.

Senator REID. The fiscal year 1987 appropriation for the program was $4 million. Would you provide for the record a listing of the organizations which received funding in 1987 and the amount each received?

Mr. BROWN. I would be happy to do that.

[The information follows:]

NATIONAL CAPITAL ARTS PROGRAM—FISCAL YEAR 1987

| Institution | Fiscal year 1986 income exclusive of Federal funds | Percent total budgets | Base award | Percent award | Total award |
|---|---|---|---|---|---|
| Arena Stage | $8,441,263 | 14.6 | $186,667 | 175,200 | $361,867 |
| Capital Children's Museum | 3,125,111 | 5.4 | 186,667 | 64,800 | 251,467 |
| Corcoran Gallery | 5,990,566 | 10.4 | 186,667 | 124,800 | 311,467 |
| Ford's Theatre | 3,027,624 | 5.3 | 186,667 | 63,600 | 250,267 |
| National Building Museum | 934,485 | 1.6 | 186,667 | 19,200 | 205,867 |
| National Symphony | 10,988,000 | 19.0 | 186,667 | 228,000 | 414,667 |
| Phillips Collection | 3,196,414 | 5.5 | 186,667 | 66,000 | 252,667 |
| Shakespeare Theatre at the Folger | 1,816,168 | 3.2 | 186,667 | 38,400 | 225,067 |
| Washington Opera | 4,282,336 | 7.4 | 186,667 | 88,800 | 275,467 |
| Folger Shakespeare Library | 3,502,645 | 6.1 | 186,667 | 73,200 | 259,867 |
| Meridian House | 1,032,058 | 1.8 | 186,666 | 21,600 | 208,266 |
| Textile Museum | 1,005,482 | 1.7 | 186,666 | 20,400 | 207,066 |
| Washington Ballet | 1,766,930 | 3.1 | 186,666 | 37,200 | 223,866 |
| Washington Performing Arts Society | 4,953,277 | 8.6 | 186,666 | 103,200 | 289,866 |
| National Museum of Women in the Arts | 3,651,648 | 6.3 | 186,666 | 75,600 | 262,266 |
| Totals | 57,714,007 | 100.0 | 2,800,000 | 1,200,000 | 4,000,000 |

## VISITORS' FACILITY—WASHINGTON MONUMENT

Senator REID. Last year we talked about the National Park Service proposal for additional visitor facilities near the Washington Monument. At that time the commission had objected to the service's original design and you were waiting for the service to submit a revised design.

Has the Park Service resubmitted the proposal to the Commission. It is my understanding the answer is no.

Mr. BROWN. That is right, Senator. We are waiting.

Senator REID. Have they told you when they are going to do this?

Mr. BROWN. They haven't. And it is really sad, because I think that this is one of the great pieces of unfinished business. The Washington Monument is perhaps the most visible single element in all of the monumental core of Washington.

There was a symposium at the National Gallery last fall under the auspices of our center for advanced study in the visual arts on The Mall, and we had experts from around the country for 2 days giving papers on the history of The Mall and the future of The Mall. It gave me rather a thrill to find how much interest there is in the national community, that this is not just a Washington subject.

## WASHINGTON MONUMENT—LIGHTING

Out of the symposium came, I think, a certain consensus that of the unfinished aspects of The Mall the most important was the Washington Monument. First of all, the lighting of it at night is ridiculous at the moment.

Senator REID. That is one of the questions I had. I understand the Park Service is looking into improving the exterior lighting for the monument. Will the commission have to approve any change in the lighting?

Mr. BROWN. It will and it has. They came to us with an extremely intelligent design. As it happens, I worked with the designer under another hat at the National Gallery, one of the best lighting designers in the country. He has come up with a scheme which will wash the planes of the Washington Monument evenly but also in a very sensitive configuration which will make each alternate plane be at a slightly different intensity so it will always have a kind of sculptural presence, a highlight and a less lit face from any point that you look at it.

As far as the Fine Arts Commission is concerned, the approvals have been given. This awaits funding, as I understand it, and I would love to see that happen. That is step one.

The other problem of how to handle visitors and what to do with that whole area. At the moment we should, in my view, continue to implement the master plan for The Mall, which has been approved, which requires tree planting around so that one has some greater definition of that space. All of this is to me a high national priority and should receive the kind of funding it deserves.

## TRAVEL EXPENSES

Senator REID. One last question. Page 11 of your budget shows actual travel expenses for 1987 at $3,000 and a request for $15,000 in fiscal year 1989.

Would you explain to the subcommittee why the large increase?

Mr. BROWN. The amount of travel we are potentially liable for has been calculated very precisely in view of where our commissioners come from, and one has to be prepared for them to attend all meetings and to come and to submit their expenses. Not all of these things happen in real life, we found last year. As a matter of fact, very generously, some of our members simply did not ask the Government to reimburse them for their travel expenses coming here. We have members from as far as California. Therefore we got off easy. We felt in the budgeting process we had, however, to be clear eyed about this contingent liability and we should put in the proper amount.

Senator REID. I understand.

We appreciate very much your testimony here today. As usual you have been prepared. We appreciate very much your time and the great work you do.

Mr. BROWN. Thank you very much, Senator.

# ADVISORY COUNCIL ON HISTORIC PRESERVATION

## STATEMENT OF ROBERT D. BUSH, EXECUTIVE DIRECTOR

## ACCOMPANIED BY FRANK L. SUMAN, ADMINISTRATIVE OFFICER

### PREPARED STATEMENT

Senator **Reid**. We will now turn to the 1989 budget estimate for the Advisory Council on Historic Preservation.

The lead witness for the council today will be Dr. Robert Bush, Executive Director of the Council.

Dr. Bush, welcome to the hearing today.

The budget estimate for the Council for 1989 is $1,781,000, an increase of about 4 percent of the 1988 appropriations to date. According to the material submitted in support of the budget estimate, the increase will be used largely to cover pay and retirement costs and would permit the Council to continue operations at the 1988 level into 1989.

If you would introduce the gentleman to your side, we will turn directly to the questions. As usual, we will insert your entire statement in the record.

[The statement follows:]

## STATEMENT OF DR. ROBERT BUSH

Mr. Chairman and Members of the committee, I am Dr. Robert D. Bush, Executive Director of the Advisory Council on Historic Preservation. It gives me great pleasure to present our program and appropriations request for FY 1989. The Council values the support this committee has provided over the years.

The Council is an independent Federal agency created by the National Historic Preservation Act of 1966, and is composed of 19 members, including heads of six Federal agencies, the Architect of the Capitol, representatives of State and local government, the preservation community, and non-Federal members appointed by the President. We have two principal duties: to advise the President and the Congress on matters concerning the national historic preservation program and to oversee the process established under Section 106 of the National Historic Preservation Act to protect historic properties from needless harm by Federal activities. To carry out these duties, our FY 1988 appropriation is $1.719 million; our requested level for FY 1989 is $1.781 million.

Under Section 106, we review over 1,500 projects each year, ranging from the construction of reservoirs and highways to the rehabilitation of historic buildings and the issuance of Federal permits for private construction activites. Over 700 of these projects involve consultation among the Federal agency, the State Historic Preservation Officer (SHPO), and the Council to deal with the effects on historic properties, with particular attention to mitigating adverse impacts. Through open discussions among interested parties, examination of possible alternatives, and consideration of the views of the affected public, balanced and reasonable solutions are reached. Needed Federal projects proceed, and historic preservation values are protected.

The agreed-upon solutions to potential conflicts between historic presevation and Federal projects achieve a variety of objectives. First and foremost, they usually result in the accommodation of project needs and historic preservation through modification or redesign of the project. Quite often, through the input of expert advice from the Council and the State Historic Preservation Officer, this is achieved at a savings in cost to the Federal government compared to the original proposal. Second, because the solution is agreed to by the sponsoring agency and the historic preservation interests, it provides a clear blueprint for project development that avoids disputes and delay as the project is implemented.

Finally, a definitive agreement with the Federal agency as to its treatment of historic properties establishes a clear record of that agency's compliance with the law. As a result, successful legal challenges which might otherwise delay a worthwhile Federal project are nearly impossible.

During FY 1987, the Council instituted major improvements to the Section 106 process adopted in FY 1986, which are designed to improve compliance by Federal agencies. Revised Section 106 regulations became effective on October 1, 1986. Throughout FY 1987, we undertook an aggressive campaign of making the regulatory improvements known to and understood by users. As a result, we are beginning to see improvements in the flow of casework.

The objectives of the new regulations are to provide a more flexible review process for Federal agencies and shorter review times while still maintaining the previous level of protection to historic properties. Specific deadlines are defined throughout the process and expanded opportunities for participation by the public in the process are included. Our experience since the beginning of FY 1987 indicates we will achieve these objectives as the system becomes more familiar to the users.

Our new regulations have been the occasion for a strengthened emphasis in training with those individuals involved in the section 106 process. The Council's two day training course, "Introduction to Federal Projects and Historic Preservation Law," has prepared many officials to address the Section 106 review process efficiently and effectively. Since its inception in 1981, the course has been offered over 60 times and has trained more than 2,500 Federal, State, and local officials. In 1987, the course was extensively revised to reflect regulatory changes.

Special training sessions for State Historic Preservation Officers were held in late 1986 to acquaint them with our regulatory changes. The State Historic Preservation Officers are one of our principal partners in Section 106 reviews. Their active and informed participation permits the system to function at the State and local level as successfully as it does. The new regulations highlight the role of the SHPO in the preservation review process.

The results of the training have been apparent in subsequent Section 106 case consultation: trainees are better equipped to meet preservation responsibilities under Federal law, and can complete the Section 106 process more efficiently. We are continuing our emphasis on education for FY 1988 by programming some of our additional funds for training coordination and delivery of training services.

An important Council activity in the past few years has been our effort to help Federal agencies develop internal systems to deal efficiently with preservation requirements. We have emphasized programmatic consultation with agencies to harmonize the conduct of their principal missions with the policies of the National Historic Preservation Act.

The Council uses several mechanisms to attain this goal. Most useful is the Programmatic Agreement, in which the Council, one or more State Historic Preservation Officers, and a Federal agency agree on a program for treating historic properties in connection with some large or complex Federal activity. This agreement supersedes application of the regulations to specific cases and is tailored to the needs of the agency, the particular activities, and the types of historic properties in question. The Programmatic Agreement reduces paperwork, speeds up the time-frames for agency reviews of their undertakings, and cuts back on the number of steps required in the consultation process. Additionally, the Council has provided supplementary advice to Federal agencies on appropriate, efficient and workable ways to deal with the Section 106 process. Current examples of this are guidance documents on identifying historic properties and public participation in the Section 106 process. These are being prepared under the supervision of a Council member task force.

We have found that the resources invested in programmatic and training efforts reap significant dividends over the long term for both the Council and Federal program agencies. Developing internal preservation systems and capabilities is the key in the long run to sensitive consideration of historic preservation values by Federal agencies. With proper guidance, education, and tailored procedures, agencies solve their own problems with less need for recourse to the Council.

Also important is the Council's statutory duty to make recommendations on policy matters affecting historic preservation.

We have shared the results of our important studies with this committee in the past. In 1986, for example, the Council provided an assessment of twenty years of achievement under the National Historic Preservation Act to the President and the Congress. This overview of the National Historic Preservation Act was the basis for our 1986 annual report to the President and Congress, copies of which have been sent to you. The report highlights the program's successes and identifies areas that present challenges and opportunities in the future. Through such reports, the Council makes every effort to contribute to the legislative work of this committee and complement related studies and recommendations being prepared by the Department of the Interior and others.

Our modest increase for FY 1989 covers the slightly higher costs of Council operations without seeking funds for new program activities. We believe it will permit the Council to continue its goal of improving the sensitivity of the Federal government to historic preservation needs. With more efficient Section 106 regulations, we expect to continue our leadership role in the national historic preservation program, focusing on improving the Federal government's sensitivity to preserving the national patrimony. We are committed to promoting the policies of the National Historic Preservation Act, which Congress enacted in 1966 to advance historic preservation in our nation. We will continue to do our part to carry out the Act's purposes in the most efficient and cost-effective manner.

7/9

## SUMMARY STATEMENT

Dr. BUSH. Thank you, Mr. Chairman. It is a pleasure to be here. The gentleman to my immediate left is Mr. Frank Suman, who is our administrator for budget and other fiscal affairs.

I have submitted a general statement for the record and I see no need to take up the committee's time going over that. I do have a couple of general remarks that I would like to make, though, Mr. Chairman.

Senator REID. Please proceed.

Dr. BUSH. First of all, I am honored to appear before this committee. Being the new executive director this is my first opportunity to defend our budget.

Second, it is my pleasure to announce that we do have a new chairman for the Advisory Council. Our former Chairman, Mrs. Baker submitted her resignation last January in order to assume the responsibilities as superintendent of the Denver Mint. Just in the past few weeks the new Chairman was designated by President Reagan. He was in fact a former member of the Council. Our new Chairman is Mr. John F.W. Rogers.

Because of the late appointment of Chairman Rogers it is my duty to inform you that he will not be able to appear today. He has a prior commitment although he would have liked to testify very much. So I am happy to be here in my capacity as the Executive Director to represent the Advisory Council.

Our budget request is for $1,781,000. We have a staff of 33 people. This represents a current level budget with a slight increase, as you indicated, Senator, of about 4 percent, to meet the rising cost of doing business.

Shortly after I came on board, both for purposes of helping me to better understand what the Advisory Council was and the budgetary picture, we decided to convene a special task force of Council members.

You may recall that in the course of our operation we use task forces or panels, primarily with our section 106 caseload. In this particular instance we decided to convene a budget task force, the primary purpose being to have the members of the Council as well as the Chairman and the Vice Chairman examine our budget, look at our needs based upon current conditions and the picture of the national budget. We wanted to look at where we had been, where it is we are going in light of our new regulations, and so forth, and to meet with staff on the whole budget picture.

The budget that we submitted to OMB and which you have before you is the result of those deliberations not only by staff but also by Council and OMB.

Also, we have gone into a planning phase to develop an internal management plan to see not only in terms of the budget where we are, but in light of our revised regulations and the current situation in the preservation community, what changes, if any, we should be looking at as a Federal agency in order to be as effective and as efficient as we can be. We have made, I think, some very positive steps along those lines, and we are looking now at the point of putting all these ideas together into some kind of a master plan for the agency for the next 5 years.

We were quite pleased with the presentation which we made to the Office of Management and Budget with regard to our needs for 1989, and we hope to be able to convince you to concur in that.

We are continuing to work with the section 106 revised regulations, and we have found that in working with the various Federal agencies some of our earlier projections about how the regulations would work, particularly in light of our extensive training program, were confirmed, and some of the projections that we made about our workload were correct and others were wrong. But I guess that is the problem when making projections.

We feel the budget we have submitted to you is one that will enable us to continue to perform our present level in protecting our country's historic resources while holding down the cost to the Government. It is also one which we are working very closely to continue our work with the States and local communities and a variety of other preservation organizations both in this country and to some extent abroad.

We are looking forward to renewing our authorization level which expires on September 30, 1989, and that is set as an agenda item for the next regular meeting of the Advisory Council, which will be this upcoming Monday, April 18.

Senator, that concludes my opening remarks. I would be happy to respond to any questions from the committee.

### SECTION 106 CASELOAD

Senator REID. I understand the actual number of cases increased about 10 percent in fiscal year 1987 over 1986. Is that right?

Dr. BUSH. Yes, sir; the case count has gone up. That was one of the things that we had not anticipated. We thought the case level would stay the same or, in fact decrease, but it has gone up about 10 percent.

Senator REID. What has happened during the first part of 1988?

Dr. BUSH. So far into fiscal year 1988 the caseload seems to be continuing at its 1987 levels, or rising. We also have found that there is an increased number of programmatic agreements which cover many cases, as opposed to the memoranda of agreement which addresses individual cases. One of the things which was brought about in our new regulation was to attempt to work with the Federal agencies on program requirements as opposed to individual cases. Therefore the agreements reflecting broader programs have shown a remarkable increase, but the largest single category in that programmatic effort is to work with the community development block grants, and so there is an explanation as to why some of these cases have increased.

Senator REID. Is the Council able to provide all the assistance required by the workload, or is the Council trying to provide assistance in a priority sequence with the programmatic cases having the first priority?

Dr. BUSH. We are trying to provide as much in the way of assistance as we can. What has happened is that the regulations established specific deadlines for execution of memoranda of agreement, when they come in to the point that they must be reviewed by all parties and signed, and that is our first priority. In other words, we are trying to keep pace with the existing caseload despite the fact that it has increased, and we are doing the programmatics as we can. We could be doing more in the way of programmatic agreements, but again, depending upon some of the cases, many of which have become very critical and some which are requiring more effort in order to make sure that we have covered all aspects, is taking more of our time than we had originally anticipated.

## TRAINING COSTS

Senator REID. We have some other questions that we want to submit to you. You heard the bells. Rather than my going over and coming back, I think we can do these by submitting them to you in writing.

I do have one additional question that I want to ask. In your opening statement, on page 3, you said:

> We are continuing our emphasis on education for fiscal year 1988 by programming some of our additional funds for training coordination and delivery of training services.

To what additional funds do you refer here?

Dr. BUSH. What we have been attempting to do is to try and see where we could find additional funds from other agencies that will help us in the training program. For example, with some of our training programs, the cost of undertaking a training program, let's say in San Francisco, can be quite expensive. We receive requests from an agency like the Corps of Engineers or the U.S. Coast Guard to work with their officers or their people. What we have been trying to do is to have those agencies pay some of the costs. On our part, we have been able to use some funds as they become available and they are not being used for such other things as member travel. We may have a few thousand dollars, for example, that could be used to pick that up. It is a small amount, but it is very definitely one of the key areas in our program. One of the theories about the increase of our caseload, Senator, is the fact that more people now know about the 106 requirement for historic preservation through our education program and are therefore complying with it.

## ADDITIONAL COMMITTEF QUESTIONS

Senator REID. We have some questions on that subject that will be submitted to you.

We appreciate very much your attendance here today. I wish you well in your new job.

Dr. BUSH. Thank you.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

Question. For the Record, would you provide the committee a summary of your experiences for the past 18 months, along with any ideas for refinement in the new 106 regulations which should be considered?

Answer. We find that we are processing more routine cases than before, and more cases in which an agency has terminated consultation and requests final Council comment. These are not on the whole the most productive of our review activities, but they are those with precise time limits that must be met, and hence they tend to be given priority. The result is that a number of other activities, such as consultation on complicated cases and review of agency programs, cannot be pursued at the level we would like.

We are undertaking a number of experiments in internal organization to relieve these problems, and in the long run are hoping that these, together with improvement in agency and State Historic Preservation Officer performance, will relieve the burden of routine work somewhat.

Aside from some possible definitional changes and clarifications, we see little that can be done to refine the regulations per se. Changes that would significantly improve the flow of casework -- for example, by providing that agency/SHPO agreements need not be reviewed by the Council, or by limiting the circumstances under which an agency could terminate consultation, were discussed during the development of the regulations. Each raised unanswerable legal questions and/or generated insurmountable opposition from agencies and the preservation community. Accordingly, under the Council's present statutory authority we see little basis for significantly refining the regulations.

Question. Are other Federal agencies pleased with the new regulations?

Answer. There are few, if any agencies that will acknowledge being pleased about anything that regulates its activities, but reactions are generally positive. Such reactions are expressed most often in the context of the training course, where agency officials regularly express gratification at the flexibility and reasonableness of the regulations.

Some agencies have specific continuing objections to the regulations, however. The Department of Transportation, notably, has recently objected formally to the provision that owners of lands affected by a Federal undertaking subject to Section 106 review must be allowed to consult with the responsible agency, SHPO, and Council during the development of ways to avoid or mitigate adverse effects. DOT argues strongly that owners of historic properties should be the only parties allowed to participate in this process. Such disagreements will doubtless continue for some time to come.

Question. Provide your reimbursable record by agency for the past five years.

Answer. Our reimbursements have been limited to three specific functions. (1) Detail of a Council employee to the National Endowment for the Arts (which was terminated on September 30, 1987); (2) the Council training program in which the General Services Administration pays travel and expenses of ACHP instructors; and (3) extraordinary Section 106 reviews requested by an agency that provides travel expenses of ACHP staff. The following chart is a five year summary of our reimbursable activity by Federal agency.

($000)

| | NEA | GSA | All other agencies | Total |
|---|---|---|---|---|
| FY 1987 | 52 | 12 | 4 | 68 |
| FY 1986 | 50 | 9 | 2 | 61 |
| FY 1985 | 49 | -- | -- | 49 |
| FY 1984 | 46 | -- | -- | 46 |
| FY 1983 | 15 | -- | -- | 15 |

Question. How many training sessions did the Council administer in 1987? (p.15) And so far in 1988?

Answer. In 1987 our justification shows that we offered 21 sessions of our basic Section 106 training course sponsored by GSA and the ACHP; 7 workshops on the revised regulations; 5 individual agency-sponsored courses; and 1 course on land management designed for the Forest Service. In 1988 we have held 10 sessions of the basic GSA/ACHP course through April 14, 1988.

Question. Does the Council actually run the training sessions, or do they contract out this activity?

Answer. The Council runs the training sessions, in cooperation with the General Services Administration. GSA provides technical back-up, advertising, and administration, while Council staff handle curriculum development, teaching, etc. In a small percentage of cases GSA hires outside contractors to teach the course, usually in tandem with members of the ACHP staff.

Question. Has the Council reviewed the potential of contracting out for this Activity?

Answer. Yes, in fact, in the early days of our training effort the course was entirely contracted out, but the results were unsatisfactory. In recent years GSA has contracted with individual instructors to teach some courses but, we have provided for a member of the staff to assist.

Contracting out would have the obvious advantage of reducing the burden of teaching on the Council's staff. However, use of staff as teachers provides us with several advantages that we would be reluctant to give up:

1. The staff members' first-hand knowledge of Section 106 review makes them able to teach the course with more authority than a contractor.

2. The staff has direct access to the Council's legal expertise and policymaking apparatus which makes it possible for them to respond reasonably to a wide range of trainees' questions that relate to the section 106 process but are outside the basic course curriculum.

3. Staff instructors are exposed to the perceptions and concerns of agencies and others in very important ways. Sensitivity to those concerns and perceptions improves staff handling of casework.

4. Training trips are usually combined with other work in the areas where the course is held -- for example, on-site review of

projects, meetings with agencies or SHPOs, or participation in workshops with agencies, local governments, and members of the public. This practice saves money by reducing the number of trips that must be taken outside the context of training.

Question. On Page 8 of your justification, you state that your fiscal 1989 request includes $46,000 for salary increases, including $21,000 for promotions, and $10,000 for within grade increases. Are these net costs for promotions and within grade promotions, or are these the gross amounts anticipated for these actions?

Answer. The justification shows a $46,000 increase for salaries which consists of $21,000 for the pay raise, $15,000 for promotions, and $10,000 for within grade increases including merit pay for Grade 13 through 15 employees under the Performance Management and Recognition System (PMRS). All of these expenses are net costs. We plan to promote 3 GS-9 Historic Preservation Specialists to GS-11 at a cost of $12,000 and to promote 3 clerical positions from grade 4 to grade 5 for $3,000. Employees are eligible for within grade raises after 1 year of service in grade steps 1, 2, and 3; after 2 years of service in grade steps 4, 5, and 6; and after 3 years of service in grade steps 7, 8, and 9.

Question. Have within grade increases been budgeted in prior years?

Answer. Yes. These increases are normal personnel costs that must be covered every year.

Question. Have you ever had a budgeted decrease associated with within grade costs?

Answer. No. A decrease could only occur if you experience a large turnover in which higher salaried staff would be replaced by less experienced, lower salaried employees.

Question. In theory, shouldn't there be some years with a decrease, and other years with an increase? For the record, would you provide sufficient detail for the committee to review these proposed cost increases and to determine if the requests are net or gross costs?

Answer. Unless you are replacing a large part of your staff, the question of decreased with-grade costs can never occur. The personnel compensation system is based upon performance. Incentives are available to reward good performance in the form of promotions, within-grade raises and cash awards. Whenever jobs are being filled at the maximum grade level and promotions are not possible, within grade raises are one of management's tools to ensure a highly motivated and effective work force. Out of 33 full time positions the following 16 positions will be eligible for within grade increases in FY 1989.

($000)

| Position | Grade | 1988 Salary | 1989 Salary | Inc. (+) |
|---|---|---|---|---|
| *1. Dir.OCRP | 15/5 | $ 61.9 | $ 62.5 | $.6 |
| *2. Adm. Officer | 14/8 | 58.4 | 58.8 | .4 |
| *3. Chief, EDPR | 13/4 | 44.2 | 44.8 | .6 |
| *4. Chief, WDPR | 13/3 | 42.9 | 43.5 | .6 |
| *5. Senior Arch | 13/7 | 46.7 | 47.1 | .4 |
| *6. Pubs Dir. (part-time) | 13/5 | 34.9 | 35.5 | .6 |
| 7. Mgr.Word Proc | 11/1 | 27.7 | 28.6 | .9 |
| 8. Train Coord | 11/2 | 28.6 | 29.6 | 1.0 |
| 9-13. Hist Pres. Specialists | 11/various | 141.2 | 148.8 | 4.6 |
| 14. Writer/Editor | 9/1 | 22.9 | 23.7 | .8 |
| 15. Editorial/asst | 6/1 | 16.9 | 17.4 | .5 |
| Total | 15(FTE) | $526.3 | $537.3 | $11.0 |

* Personnel Management Recognition System Employees (PMRS)
Note: $10,000 was included in the budget for within grade raises.

Question. Could you explain to the committee why the Council's rent should vary as much as is shown on page 8 of your justification? It shows $166,000 in 1984; $138,000 in 1987; and $165,000 in 1989. Has the Council's actual space changed? For the record, please include a statement showing the actual square footage and the cost per square foot for each of these years.

Answer. The General Services Administration sets the rental rates for our space. The FY 1984 charges represent our first year in the newly renovated Old Post Office Building and the initial rates of approximately $27.00 per square foot were reduced in subsequent years and the amount of joint use space was reallocated. The field office in Golden Colorado was moved in FY 1987 and in FY 1988 201 square feet of space was added in to accomodate the Council Chairman. The additional space is now being used as a training area. The following chart provides the detail by fiscal year.

Washington Office

($000)

|  | FY 1984 |  | FY 1987 |  | FY 1989 |  |
|---|---|---|---|---|---|---|
| Space | Sq.Ft. | Cost | Sq.Ft. | Cost | Sq.Ft. | Cost(Est.) |
| Office | 5,852 | $145 | 5,852 | $118 | 5,852 | $140 |
| Joint use | 410 | 10 | 293 | 7 | 293 | 9 |
| Subtotal | 6,262 | $155 | 6,145 | $125 | 6,145 | $149 |
| Golden, CO Office |  |  |  |  |  |  |
| Office | 1,075 | $ 11 | 1,360 | $ 11 | 1,555 | $ 15 |
| Joint use | -- |  | 41 | 1 | 47 | 1 |
| Subtotal | 1,075 | $ 11 | 1,401 | $ 12 | 1,602 | $ 16 |
| GRAND TOTAL | 7,022 | $166 | 7,546 | $138 | 7,747 | $165 |

Question. What is the basis for your budgeted increase of $11,000 (or +38%) for a group of costs known as "other Rent, Communications, and utilities"? Please provide a detailed response for the committee.

Answer. Our FY 1988 budget base of $29,000 is simply insufficient to cover the actual level of these costs. Based on our FY 1987 experience the following obligations were incurred by category.

| | |
|---|---|
| Commercial telephone | $ 5,741 |
| GSA Common distribution telephone (FTS) | $14,202 |
| Postage | $ 8,092 |
| Office equipment rental (2 photo-copiers) | $10,481 |
| Telegraph | $ 177 |
| | $38,693 |

With the increased use of voice and data communications this element of expense is expected to continue to increase.

Question. The budget proposes an increase of $2,000 for equipment acquisition. For a total program level of $34,000 in 1989. For the equipment program, what is the total life cycle cost for the Council's data processing system?

Answer. Estimating that the system would last for at least 5 years before a new technology would be more cost effective, the life cycle cost including maintenance would approach $150,000.

Question. How much of that cost has been incurred to date? How much is left?

Answer. The process of converting our modest word processing system into an effective data based system started in FY 1987 as we spent $52,000 on software and hardware (13 personal computers, 5 printers and 3 communications modems). The second phase of our update is underway in the current fiscal year as we expect to install a small local area network (LAN) for about $18,000 and to add about 6 more personal computers for $14,000. We intend to complete the system in FY 1989 by adding 5 personal computers, 3 printers, software, and sufficient cabling to complete the LAN for $34,000. The total cost of equipment, installation and software is estimated at $116,000. Maintenance over the 5 year life cycle is expected to cost about $5,000 to $6,000 per year for a cost of $25,000 to $30,000.

Question. The budget also proposes a reduction of $10,000 for acquisition of supplies. What was acquired in 1988 that was not acquired in 1987? That will not be acquired in 1989?

Answer. Our experience showed that the FY 1988 base of $25,000 is somewhat high as we spent $13,000 for supplies in FY 1987, therefore we have reduced our request for supplies. We feel that $15,000 will be adequate for FY 1988 and FY 1989.

Question. For the record, please list the total of all of the items acquired in 1987.

Answer. We have developed a list of the types of supplies with examples under each category.

| | |
|---|---|
| 1. Library books<br>Code of Federal Regulations, Periodicals, Subscriptions, reference books | $ 2,861 |

| | | |
|---|---|---|
| 2. | Camera & Copier<br>Paper, chemicals, developer, toner for xerographic machines and visuagraph camera | $ 2,842 |
| 3. | Word processing/ADP<br>print wheels, floppy discs, print ribbons, and cartridges | $ 2,138 |
| 4. | General Supplies<br>paper, pencils, folders and calendars, and other supplies available through the General Services Administration supply system. | $ 3,522 |
| 5. | Miscellaneous office supplies unavailable as the GSA, purchased from commercial sources -- extension cords, tools, folders. | $ 1,716 |
| | TOTAL | $13,079 |

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Reauthorization

Question. The Advisory Council for Historic Preservation was authorized in 1985 for five years and expires at the end of FY 89. What is the status of a new authorization for ACHP?

Answer. The Council is scheduled to consider a request for reauthorization legislation at its April 18, 1988 meeting. The members are expected to determine the level and term of appropriations authority they wish to seek. Subsequent to their action, we will submit a formal request for the introduction and enactment of appropriate legislation.

### Section 106

Question. One of the major activities of the Council comes under section 106 of Council's authorization. Under section 106, the Council reviews 1500 projects ranging from construction of reservoirs and highways to the rehabilitation of historic buildings and the issuance of Federal permits.

A major overhaul of the section 106 process began in 1981 and was completed when final regulations were issued in October of 1986. One of the objectives of the new regulations was to streamline the review process and provide for a more flexible review process. Can you demonstrate how the new regulations have accomplished the objectives?

Answer. Streamlining: The regulations give agencies the opportunity to consult only wit the State Historic Preservation Officer and other interested persons, without Council participation, to resolve adverse effects on historic properties where the agency and SHPO agree that this is desirable and the Council does not wish to participate. This streamlines the process by eliminating one mandatory consulting party and the need to provide paperwork to the Council for processing on routine cases. Although fewer agencies availed themselves of the opportunity to use this approach than anticipated during the first year under the new regulations, its use is steadily increasing.

Greater flexibility: The regulations give agencies two alternative ways to deal with situations in which they believe their undertakings will have no adverse effect on historic properties, and two alternative ways to handle adverse effect situations, this automatically provides greater flexibility. In addition, the regulations articulate a "rule of flexible application" that has made it easier than it was before to accept agency approaches that, while reasonable, do not comport with the letter of the regulations.

Question. Now that the new regulations have been in place for a full year, how has the flow of casework improved since the new regulations were issued?

Answer. Improvement in the flow of casework is apparent, but, in terms of reducing the demands on Council staff time, has been offset by an increase in overall caseload and particularly complicated cases. It appears that routine cases are being processed more quickly and with less paperwork, due to the streamlined regulations and management improvements such as delegating decisionmaking. This improvement tends to be obscured by an overall increase in caseload and a specific increase in complicated cases and cases in which an agency terminates consultation. These cases require immediate attention and are quite time consuming, because of their complexity and controversy. On occasion, these demands require routine work to be assigned lower priority and to move through review more slowly than might otherwise be the case.

Question. Do the positive results of the review process stem from the new regulations or from the increased training sessions?

Answer. We believe that both the new regulations and our intensified training efforts are responsible. The new regulations make it easier for agencies to comply with section 106, and make it easier for the Council to respond. The training sessions have increased the number of people who feel comfortable about their ability to handle the process. However, a side effect of both the increased ease of compliance and the increased ability of agency officials to meet Section 106 requirements has resulted in a substantial increase in our overall caseload.

Question. How have the new regulations changed the workload of the Council?

Answer. Two major trends are discernable. First, we find ourselves handling more relatively routine cases, in routine ways, than before. The regulatory provisions allowing agencies to work out problems with the State Historic Preservation Officers and others, and send the results to the Council for limited-time review, have increased our receipt of routine paperwork for review. By reducing our involvement in negotiations on routine cases, we find our caseload focussing on more complex and controversial cases, which have been increasing in number. We also find ourselves confronted with an increasing number of instances in which agencies terminate consultation and seek final Council comment within 60 days. Six such terminations have occurred thus far in fiscal year 1988 -- more than occurred in all of fiscal year 1987, which itself produced over twice as many terminations as had most previous years. This increase results from the fact that under the new regulations, termination is easier than it was under the old regulations. Though still relatively few in number, terminations are very time-consuming, requiring staff to perform detailed analyses and prepare briefing material for the Council membership, and requiring the members to review and approve proposed final comments for transmittal to agency heads.

### Historic Preservation Awards Program

Question. The fiscal year 89 justification indicates the Council proposed to create a nationwide historic preservation awards program. Can you explain the awards proposal to the subcommittee and provide us with a status report?

Answer. The Council has implemented a two-part awards program, which commemorates accomplishments under the National Historic Preservation Act of 1966 upon the occasion of its twentieth anniversary. The awards categories are:

> President's Historic Preservation Awards honoring privately funded historic preservation projects and programs, and
>
> National Historic Preservation Awards, honoring federally assisted historic reservation projects and programs.

Status. The program is actively underway at present. One hundred seventy (170) entries were received for these two awards categories from 45 States and Puerto Rico representing the preservation disciplines of archeology, architectural history, architecture, conservation, historic engineering, history, landscape architecture, maritime preservation, planning, and rural preservation.

An awards jury was appointed by the Council Chairman to judge entries; a total of 29 winners (in both categories) representing a breadth of preservation activity in the U.S. have been recommended to the Council Chairman and Secretary of the Interior Donald P. Hodel for approval. Winners of President's Historic Preservation Awards will be finally approved by the White House. It is expected that winners will be announced in mid-summer 1988 and awards ceremonies commending winners held at that time.

### SUBCOMMITTEE RECESS

Senator REID. The subcommittee stands in recess until Monday morning at 8:30, at which time the subcommittee will review the 1989 budget estimate for the Department of Energy's clean coal and fossil energy research and development programs.

[Whereupon at 11:05 a.m. Thursday, April 14, the subcommittee was recessed, to reconvene at 8:30 a.m., Monday, April 18.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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MONDAY, APRIL 18, 1988

U.S. Senate,
Subcommittee of the Committee on Appropriations,
*Washington, DC.*

The subcommittee met at 8:30 a.m., in room SD-192, Dirksen Senate Office Building, Hon. Robert C. Byrd (chairman) presiding.

Present: Senators Byrd and Burdick.

## DEPARTMENT OF ENERGY

### Fossil Energy Research and Development Programs

**STATEMENT OF J. ALLEN WAMPLER, ASSISTANT SECRETARY FOR FOSSIL ENERGY**

**ACCOMPANIED BY:**

**DONALD L. BAUER, PRINCIPAL DEPUTY ASSISTANT SECRETARY, FOSSIL ENERGY**

**JEREMIAH E. WALSH, DEPUTY ASSISTANT SECRETARY, MANAGEMENT, FUNDAMENTAL RESEARCH AND COOPERATIVE DEVELOPMENT**

**JACK S. SIEGEL, DEPUTY ASSISTANT SECRETARY, COAL TECHNOLOGY**

**MARVIN I. SINGER, DEPUTY ASSISTANT SECRETARY, OIL, GAS, SHALE AND SPECIAL TECHNOLOGIES**

### PREPARED STATEMENT

Senator Byrd. The subcommittee will come to order. Good morning.

This is the time scheduled for the Department of the Interior and Related Agencies Subcommittee to review the fiscal year 1989 budget requests for the Department of Energy's Clean Coal Technology and Fossil Energy Research and Development Programs. Testifying on behalf of these programs this morning is Mr. J. Allen Wampler, Assistant Secretary for Fossil Energy Research and Development.

Welcome before the subcommittee this morning, Mr. Wampler. We have your prepared statement, and it will be inserted into the record at this point. Would you please introduce your associates who are here today and give us a brief description of your activities. We will then proceed to our questions.

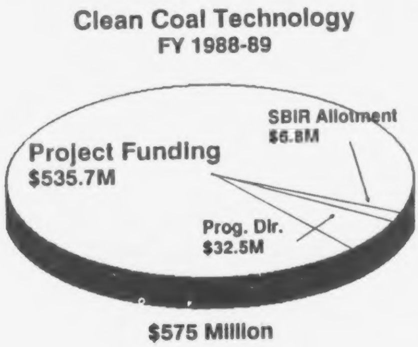
[The statement follows:]

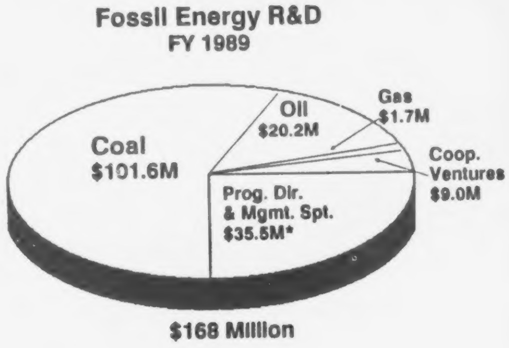
## STATEMENT OF J. ALLEN WAMPLER

**Continued implementation of the President's expanded clean coal technology program undergirded by a sound coal research and development (R&D) effort, a new emphasis on the enhanced recovery of oil, and the initiation of a two-phase cooperative R&D venture program highlight the Administration's FY 1989 fossil energy technology budget request. The following testimony describes these key elements of the budget request as well as providing individual fact sheets on each budget item contained in the proposed Fossil Energy program.**

### Introduction

The two major components of the Department of Energy's fossil energy technology program are (1) the Clean Coal Technology Program, which provides cost-sharing for large-scale, near-commercial demonstrations of emerging coal-based technologies, and (2) a diverse array of more fundamental, smaller-scale research and development efforts in coal, oil and unconventional natural gas. The two programs, depicted below with their major funding components, are complementary efforts – the more fundamental R&D efforts generating the new concepts that are too high-risk or long-term for private sector financing alone, while the Clean Coal Technology Program is providing matching funds to industry to demonstrate the most promising coal concepts emerging from the nation's research and engineering laboratories.





*Includes Capital Equipment

The FY 1988-89 budget for the Clean Coal Technology Program ($50 million in FY 1988 and $525 million in FY 1989) reflects the appropriations approved by Congress in Pub. L. 100-202 for the first two years of the President's proposed five-year program. As will be described in this testimony, the Administration proposes to restore reductions made by Congress in the initial funding level by requesting advanced appropriations of $1.775 billion for FY 1990, 1991 and 1992 to ensure the federal government's full amount of the President's March 1987, $5 billion, five-year clean coal commitment ($2.5 billion of which is the federal share).

The $168 million funding request for the Fossil Energy R&D program ($167 million when a proposed $1 million offset is included) is a 53% reduction from the $354 million appropriated in FY 1988. The funding request is $17 million **higher** than the fiscal year 1988 *request*. As shown by the chart below, six of the nine major categories in the Coal program show proposed FY 1989 increases over their comparable FY 1988 requested levels. The Enhanced Oil Recovery program would increase by more than 75 percent over the department's FY 1988 requested amount. Given current fiscal constraints, we believe the FY 1989 budget request for Fossil Energy R&D is both technically prudent and fiscally sound.

## FOSSIL ENERGY RESEARCH AND DEVELOPMENT

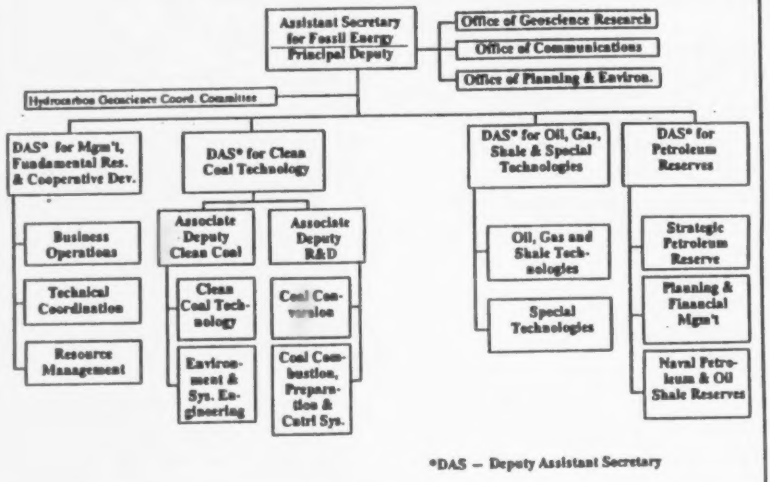
| | FY 1988 Request | FY 1988 Approps | FY 1989 Request |
|---|---|---|---|
| **COAL** | | | |
| Control Technology & Coal Preparation | $ 29.69 | $ 43.62 | $ 31.49 |
| Advanced Research & Technology Development | 20.75 | 24.94 | 21.41 |
| Coal Liquefaction | 9.50 | 27.13 | 10.30 |
| Combustion Systems | 21.09 | 25.17 | 17.42 |
| Fuel Cells | 6.58 | 34.20 | 6.63 |
| Heat Engines | 8.30 | 17.95 | 9.00 |
| Underground Coal Gasification | 0 | 2.78 | 0.27 |
| Magnetohydrodynamics | 0 | 35.00 | 0 |
| Surface Coal Gasification | 5.80 | 22.99 | 5.03 |
| Subtotal, Coal | 101.70 | 233.77 | 101.55 |
| **PETROLEUM** | | | |
| Advanced Process Technology | 2.00 | 3.43 | 2.17 |
| Enhanced Oil Recovery | 9.30 | 16.54 | 16.98 |
| Oil Shale | 0.96 | 9.50 | 1.04 |
| Subtotal, Petroleum | 12.26 | 29.46 | 20.19 |
| **GAS** | | | |
| Unconventional Gas Recovery | 1.60 | 10.53 | 1.73 |
| **Program Direction & Management Support** | | | |
| Program Direction | 38.44 | 61.84 | 34.78 |
| Federal Inspector - Alaskan Gas Pipeline | 0.23 | 0.23 | 0.25 |
| Subtotal, Prog. Dir. & Mgm't Spt. | 35.70 | 62.08 | 35.03 |
| **Plant & Capital Equipment** | | | |
| Capital Equipment | 0.48 | 0.48 | 0 |
| Construction | 0.0 | 17.75 | 0.50 |
| Subtotal, Plant & Capital Equip. | 0.48 | 18.23 | 0.50 |
| Cooperative Ventures | 4.50 | 0 | 9.00 |
| Offsets | -6.10 | -27.10 | -1.00 |
| **Total** | **$149.65** | **$326.98** | **$167.00** |

### Fossil Energy Organization

To implement the expanding Clean Coal Technology Program and to ensure that it remains closely aligned to the ongoing related coal R&D programs, significant changes were made in the Office of Fossil Energy's headquarters organization effective on February 29, 1988. The revised organization also realigns several supporting functions within the organization to reflect more accurately the day-to-day operations of the program.

Simultaneously with the organizational restructuring, several senior- level Fossil Energy management officials have been given new assignments within the headquarters organization. These changes will help to ensure that the Office of Fossil Energy benefits from new ideas and management approaches and that expertise gained in one research area can be transferred and applied in other programs. The new Fossil Energy organization is depicted below:

### New Fossil Energy Headquarters Organization


Assistant Secretary for Fossil Energy
Principal Deputy
Office of Geoscience Research
Office of Communications
Office of Planning & Environ.
Hydrocarbon Geoscience Coord. Committee
DAS* for Mgm't, Fundamental Res. & Cooperative Dev.
Business Operations
Technical Coordination
Resource Management
DAS* for Clean Coal Technology
Associate Deputy Clean Coal
Clean Coal Technology
Environment & Sys. Engineering
Associate Deputy R&D
Coal Conversion
Coal Combustion, Preparation & Cntrl Sys.
DAS* for Oil, Gas, Shale & Special Technologies
Oil, Gas and Shale Technologies
Special Technologies
DAS* for Petroleum Reserves
Strategic Petroleum Reserve
Planning & Financial Mgm't
Naval Petroleum & Oil Shale Reserves

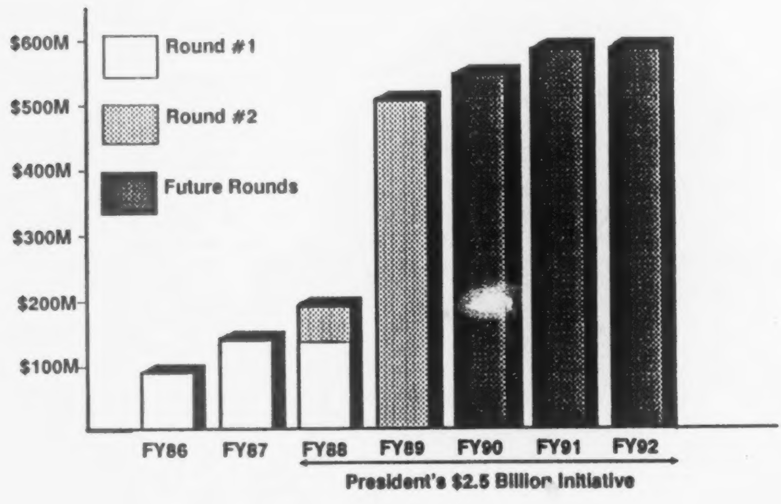
*DAS – Deputy Assistant Secretary

## Key Elements of the Budget Proposal

**Innovative Clean Coal Technology** - The President's commitment on March 18, 1987, to request the full amount of funding recommended by the U.S.-Canadian Special Envoys on Acid Rain placed this nation on an aggressive course toward becoming the world's showcase of new, highly efficient, clean-burning coal technologies. The Innovative Clean Coal Technology Program would feature a sequence of competitive solicitations between fiscal years 1988 and 1992. The staggered timetable of solicitations will encourage new, potentially improved clean coal concepts to continue their development progress and to be considered in future competitions.

The $2.5 billion (federal share), five-year program proposed by the President incorporates a portion of, and builds onto, an ongoing $400 million effort approved by Congress in FY 1986, as shown by the chart below. The initial effort (FY86-88) has, to date, resulted in the successful negotiation of seven clean coal demonstration projects with a total value in excess of $757 million (the federal share projected to be $227 million). Four additional projects are being negotiated to complete the $400 million "first round" competition. (As the chart shows, the President's five-year program includes $150 million in FY 1988 funding applied in Round #1.)

### Clean Coal Technology – Funding Profile



The funding level requested by the Administration last year to implement the FY 1988-89 portion of the President's initiative was $850 million. Congress approved $575 million, of which $535.7 million will be made available in matching funds for cooperative agreements (the remainder is required for program direction and statutory requirements). DOE issued a solicitation on February 22, 1988, to begin the initial round of the expanded clean coal competitive program. Proposals are due on May 23, 1988, and candidate projects will be selected on or before the Congressionally directed deadline (in October).

The President remains committed to implementing the full $5.0 billion clean coal program within the five years recommended by the Special Envoys. This was reemphasized in a White House statement issued on January 23, 1988. Accordingly, the department is requesting that the remaining $1.775 billion be made available as an advanced appropriation in FY 1989 to be used for subsequent solicitations in 1990 through 1992 ($575 million to be made available in FY 1990, $600 million in FY 1991 and $600 million in FY 1992).

**Continued Coal Research and Development** -- The FY 1989 budget proposal also maintains a solid core of coal-related research and development. This program, in many respects, provides the "seed money" for advances in knowledge and technical concepts that might ultimately lead to new breakthroughs and innovations in coal technology. While the annual funding level is smaller in comparison to the Clean Coal Technology Demonstration program, the R&D program is of equal importance.

Projects financed under this program are typically smaller in scale, and many are carried out in academic and private sector research laboratories (in contrast to the large demonstration projects that comprise the Clean Coal Technology Program). The value of this more fundamental program, however, is reflected in the significant advances it has fostered in the last decade. For example, since 1980, the coal R&D program has stimulated the development of:

- The **fluidized bed combustion** technique, now commercially deployed in the large industrial sector and gaining a foothold in the utility sector, including commercial-scale projects being financed in the Clean Coal Technology Program;
- **High-temperature gas cleanup** techniques that characterize "2nd-generation" gasification-combined cycle now being demonstrated in the Clean Coal Technology Program;
- The **coal-oil coprocessing** concept, originally studied in the Advanced Research and Technology Development Program, and now being demonstrated in the Clean Coal Technology Program as an economical "bridge" to the future production of synthetic liquids from coal;
- **Coal-slurry mixtures**, also originally studied in the Advanced Research and Technology Development Program, which will likely be a key fuel form for such concepts as the coal-fired diesel and turbine;
- **Underground coal gasification** which has moved from small scale development to the threshold of commercial demonstration during the last decade;
- A new array of **more effective and more economical pollution control devices**, such as electron-beam and copper oxide flue gas scrubbing, and **advanced coal preparation techniques**, many of which rely on such advances as ultrasonic grinding; and
- New insights into potentially revolutionary concepts in **microbial-based coal desulfurization** and conversion.

These advancements will help shape the future of coal technology in the 21st Century. The proposed FY 1989 budget will build on this solid base of technological progress.

In FY 1989 key research efforts will continue in physical and chemical/biochemical coal cleaning, in fine coal cleaning and in advanced flue gas and gas stream cleanup techniques. Work will also continue on novel catalytic, biological and other approaches to coal liquefaction, on benchscale development of coprocessing and/or staged liquefaction, and on the conversion of coal-derived gaseous feedstocks to liquid fuels. Coal gasification research will continue with ongoing efforts in such areas as hot gas desulfurization in entrained flow gasifiers, zirconia oxygen separation, low-energy consumption hydrogen separation and mild gasification.

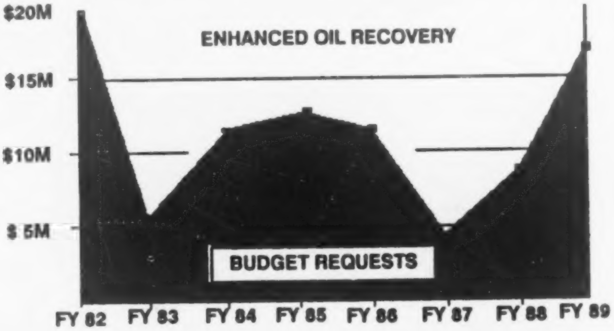
New coal combustion techniques will also continue to be studied with a focus on small scale atmospheric fluidized bed concepts, on key elements of pressurized fluidized bed technology, on advanced, non-fluidizing combustors for industrial, residential and commercial use, and on the transport, handling and combustion of coal-based slurry fuels. The FY 1989 budget also continues development of integrated coal-based gas turbine and diesel engine systems, although the number of private contractors in the program would be reduced. Fuel cell funding would concentrate on resolving remaining technical uncertainties in the molten carbonate technology and continuing the development of the solid oxide technology.

Sufficient funds either exist in the FY 1988 budget or are included in the FY 1989 request to complete several key research efforts, including the Gravimelt coal cleaning process, the fluid bed copper oxide flue gas cleanup technology, the staged coal liquefaction concepts tested at Wilsonville (AL), the liquid phase methanol synthesis technique tested at LaPorte (TX), phosphoric acid fuel cell development, a three-year underground coal gasification field test effort in Wyoming, and the Waltz Mill (PA) integration tests of gasification and hot gas clean-up. As in previous Administration requests, the department is recommending that federal support be withdrawn from the multiyear magnetohydrodynamics (MHD) development effort due to its unaffordable costs, particularly given the diversity of technological options now becoming available to industry.

**Enhanced Oil Recovery Initiative** – Continued advance of oil production technology is vital to this country. Regulatory reform, tax incentives and other financial measures will not resolve the fact that nearly two-thirds of our oil wealth is inaccessible through conventional recovery. Our target must be the approximately 300 billion barrels of domestic oil that cannot be recovered with today's technology. Much of this oil cannot be moved by conventional means (immobile) or is mobile but has been bypassed by current production methods.

To address this substantial and inviting energy target, the FY 1989 budget proposal contains an initiative to broaden the department's ongoing Enhanced Oil Recovery (EOR) Program. Several EOR research efforts have been reoriented toward shorter-term objectives, reflecting the current inability of the petroleum industry to finance this type of research on its own. New program elements have been added, some of which will be initiated in the remaining months of FY 1988. Included will be an effort to characterize a broad spectrum of the nation's oil reservoirs to gain a better, quantitative understanding of their "anatomy" – their structures, geometries, compositions and how they respond to fluid injection. Also included will be selected field tests, environmental research, and exploratory efforts in oil mining and new concepts such as microbial-based recovery techniques. A strong geoscience component will be included along with other fundamental chemical, physical and thermodynamic studies.

The enhanced oil recovery initiative emerged from months of discussions with oil company officials, academic researchers, trade associations and state agencies. We believe we have crafted a program that represents a consensus approach recommended by these private and public sector experts. The budgetary result of this new emphasis in petroleum recovery is that the department's FY 1989 request for EOR is higher than any comparable request since FY 1982, as shown by the funding chart below:



**Unconventional Gas Recovery** – The $1.7 million requested for research in the recovery of unconventional natural gas is sufficient to permit the department to assess the results of significant field tests and research efforts that have occurred in this program during the last five to six years, and to continue in-house, geoscience-oriented gas research. The recently completed Multiwell Experiment in the tight gas sand formations of Colorado has provided a wealth of new information which is now being documented. A directionally drilled, horizontal borehole test in an Eastern gas shale deposit in West Virginia has similarly generated substantial information that must be assessed before further research directions are determined. Within the geoscience focus of the proposed FY 1989 unconventional gas program, research will continue in gas hydrates and other long-range gas resources.

**Cooperative R&D Ventures** – The FY 1989 proposal for a cooperative R&D venture program is an outgrowth of a concerted effort to obtain the private sector's advice and opinion. In contrast to previous proposals in this area, the FY 1989 initiative reflects greater consideration of funding priorities and on program goals and funding requirements in future years.

The FY 1989 proposal envisions the start of a two-phase program. The first phase would build on experiences gained from a pilot cooperative venture activity supported by Congress in FY 1988 ($1 million). It would require $9.0 million in FY 1989 funding and a total of $27 million over an estimated four year period. Highest priority in this initial phase would be given to ventures that would increase the effective domestic resource base for moderately-priced liquid and gaseous fuels. If funds remain available, additional projects would be selected that could increase the contribution of coal by improving its environmental, technical and economic performance in industrial and commercial applications now dominated by oil and gas. A second phase of cooperative R&D ventures would be added beginning in FY 1990 requiring additional funding.

As in previous DOE budget requests for cooperative R&D venture funding, the program would enable the department to join private sector sponsors in the formation of joint ventures that address precompetitive stages of fossil energy technology development. Also consistent with previous proposals, the non-federal venture partners would contribute more than 50 percent of the venture funding. The cooperative ventures would be structured in such a way as to return to the U.S. Treasury the federal contributions if a venture ultimately leads to successful application of the R&D products.

The following pages describe the individual elements of the FY 1989 Fossil Energy budget request.

## INNOVATIVE CLEAN COAL TECHNOLOGY PROGRAM

| | (Dollars In Millions) (Parenthesis Indicate Round #1) | | | |
|---|---|---|---|---|
| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
| Cooperative Agreements (Non-Add) | ($145.3) | ($145.3) | 0.0 | (-100.0%) |
| (New BA) | 0.0 | $31.1 | $504.6 | +1,522.2% |
| Program Direction | | | | |
| (Non-Add) | ($2.0) | ($2.0) | 0.0 | (-100.0%) |
| (New BA) | 0.0 | 18.5 | 14.0 | -24.3% |
| Small Business Innovation Research (Non-Add) | (1.8) | (1.8) | | |
| (New BA) | | 0.4 | 6.4 | |
| **Total (Non-Add)** | **($149.1)** | **($149.1)** | **(0.0)** | |
| **Total (New BA)** | **0.0** | **50.0*** | **$525.0** | **+950.0%** |

* Total Appropriation for FY 1988 is $199.1 M.

### Background

- The goal of the CCT Program is, as stated in Pub. L. 99-190, "for the purposes of conducting cost-shared clean coal technology projects for the construction and operation of facilities to demonstrate the feasibility of future commercial operation." The Administration proposes to expand the existing program to support the Joint Envoys recommendations on the demonstration of innovative control technologies (i.e., the ICCT Program) over a five year period.
- The FY 1988 budget request included the initial increment of President's March 1987 commitment to requested $2.5 billion in federal funding over a five-year period for innovative control technology demonstration to be matched at least with 50 percent cost sharing by project sponsors.
- Specifically, an additional $50 million was appropriated in FY 1988 and $525 million for FY 1989.
- The remaining $1.775 billion is requested as an advanced appropriation in FY 1989 to be used for subsequent solicitations with $575 million becoming available in FY 1990, $600 million in FY 1991 and $600 million in FY 1992.
- The next solicitations, including the one issued February 22, 1988, will provide financial assistance awards for projects that employ technologies capable of retrofitting or repowering existing facilities.

| FY 1989 BUDGET (AS APPROPRIATED IN FY 1988) | Dollars In Millions |
|---|---|
| • **CCT-1 Cooperative Agreements (Round #1)**<br>· Complete construction on many projects and initiate or continue operational test program for several development efforts utilizing prior year funding. (FY 1988 - $147.1M) | $ 0.0 |
| • **ICCT Cooperative Agreements (Round #2)**<br>· Complete negotiations and initiate projects resulting from the new solicitation for financial assistance that will focus on retrofit or repowering projects. (FY 1988 - $31.5M) | 504.6 |
| • **Proposed funding for Small Business Innovation Research**<br>(FY 1988 - $2.2M) | 6.4 |

- **Program Direction**

| | Dollars In Millions |
|---|---|
| - Continue support of operational test program projects in first CCT solicitation using prior year funding. (FY 1988 - $5.8M) | 0.0 |
| - Continue efforts to prepare necessary evaluations, status reports, presentations, etc. as may be required to describe the expanded program and its progress to accomplishing the existing as well as added objectives. Continue project technology, market assessments required to evaluate and direct the greater number of projects selected to demonstrate innovative control technologies. Continue analysis of project data and results to ensure consistency with intent of Special Envoy's Report and program objectives. (FY 1988 - $6.0M) | 5.9 |
| - Continue environmental assessment studies and operational monitoring programs for projects selected in the initial CCT solicitation using prior year funds. Continue expanded environmental evaluation and data acquisition program required to implement NEPA requirements for each of the increased number of projects as well as the expanded program. (FY 1988 - $4.8M) | 3.9 |
| - Provide salaries, benefits, travel expenses, etc. for 58 FTEs (FY 1988 - $4.0M) | 4.2 |
| **Total FY 1989** | **$525.0** |

## COAL R&D

## CONTROL TECHNOLOGY & COAL PREPARATION

(Dollars In Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Research | $ 1.1 | $ 2.0 | $ 1.8 | -10.0% |
| Coal Preparation | 11.0 | 15.8 | 9.9 | -37.3% |
| Flue Gas Cleanup | 12.9 | 14.5 | 13.0 | -10.3% |
| Gas Stream Cleanup | 13.1 | 9.9 | 5.4 | -45.4% |
| Waste Management | 0.9 | 1.4 | 1.4 | 0.0% |
| **Total** | **$39.0** | **$43.6** | **$31.5** | **-27.8%** |

## Background

- Advanced Research, generic and fundamental in nature, is conducted on processes used to separate constituents such as ash, sulfur and nitrogen oxides in coal fuel streams before, during and after combustion.

- **Coal Preparation** is directed toward the development of advanced coal cleaning technologies that will reduce the ash and sulfur content of U.S. coal so that the product can be formulated into a high quality fuel that could replace oil and/or gas and reduce environmental emissions of suspected acid rain precursors from coal-fired boilers in both new and retrofit applications. Research is conducted in three broad areas: (1) physical treatment and cleaning; (2) chemical/biological pretreatment and cleaning; and (3) engineering support and ancillary operations.

- **Flue Gas Cleanup** addresses the removal of pollution causing contaminants from fossil fuel fired systems to meet current and projected environmental standards that could serve to limit the utilization of fossil fuels. Efforts will be focused on research and development of processes for the removal of $NO_x$, $SO_x$, and particulates, both for utility and industrial applications.

- **Gas Stream Cleanup** includes the technology for removal of contaminants from gasifier and combustor process streams prior to utilization in coal conversion systems. Both hardware and environmental protection are key concerns. Applications include PFB combustors, integrated gasifier combined cycle turbines, direct coal-fired turbines, coal-fueled diesels and fuel cells.

- **Waste Management** focuses primarily on waste sampling and characterization from coal preparation and emerging technology wastes.

| FY 1989 BUDGET REQUEST | Dollars In Millions |
|---|---|
| • **Advanced Research** | |
| - Continue fundamental research on processes used to separate constituents in coal-based fuel streams. Continue program management support. (FY 1988 - $2.0M) | $ 1.8 |
| • **Coal Preparation** | |
| - Continue research and explore new concepts for physical and chemical/biochemical coal cleaning. Continue research on new technologies for controlling emissions from pre-NSPS utility boilers. (FY 1988 - $6.3M) | 4.9 |
| - Continue DOE/EPRI testing of most promising advanced concepts for fine coal cleaning. (FY 1988 - $2.2M) | 2.1 |
| - Continue in-house research on advanced physical and chemical coal cleaning concepts. Continue organic sulfur chemistry. Characterize feed coal and coal cleaning products, and study the role of surface functional groups in coal treatment. Continue program management support. (FY 1988 - $2.6M) | 2.9 |
| - Completed or discontinued activities: low rank coal beneficiation, Gravimelt project, and coal cleaning research at SIU and Ames Lab (FY 1988 - $4.65M) | 0.0 |
| • **Flue Gas Cleanup** | |
| - Complete research on TUNG scrubbing process. Participate in EPRI high sulfur coal test facility Continue spray dryer and in-duct technology development and systems integration studies for low cost duct injection. (FY 1988 - $3.3M) | 2.9 |
| - Continue research on advanced $NO_x/SO_2$ chemistry and systems modeling. Conduct economic assessments for scaleup. (FY 1988 - $3.2M) | 2.9 |
| - Continue advanced $NO_x$ control research. (FY 1988 - $0.3M) | 1.2 |
| - Complete fluidized bed copper oxide proof-of-concept evaluation. Continue moving bed process evaluation. (FY 1988 - $1.5M) | 2.2 |
| - Continue research on most promising advanced flue gas processes for removal of $SO_2$ and $NO_x$ at larger scale. (FY 1988 - $1.9M) | 2.0 |
| - Continue research on fine particulate control in coal-fired boilers. Initiate larger scale tests of fine particulate control technology. (FY 1988 - $0.8M) | 1.0 |
| - Continue research on enhanced mass transfer for duct injection. (FY 1988 - $0.5M) | 0.5 |
| - Continue technical and program management support. (FY 1988 - $0.3M) | 0.3 |
| - Completed or discontinued projects: research on dry sorbent SOx control, advanced separation technolgy, Glo-Klen boiler tests, and NOx/SOx spray dryer. (FY 1988 - $1.4M) | 0.0 |
| • **Gas Stream Cleanup** | |
| - For Pressurized Fluidized-Bed Combustion, complete long-term test of ceramic cross flow filter. (FY 1988 - $0.2M) | 0.3 |
| - For Integrated Gasification Combined Cycle, complete subpilot scale evaluations for cross flow filter and construction of desulfurization tailgas recycle to fixed-bed gasifier test facility; continue testing sulfur control devices at bench scale and development of novel sorbents and novel reactors. (FY 1988 - $4.3M) | 3.0 |

| | |
|---|---|
| - For Direct Coal-Fired Turbines, continue subpilot scale testing of acoustic agglomeration and development of integrated low emissions concepts. (FY 1988 - $2.3M) | 1.8 |
| - Continue systems analysis and program management support (FY 1988 - $2.4M) | 0.3 |
| - Completed or discontinued projects: MCFC tolerance assessment (FY 1988 - $0.6M) | 0.0 |
| • **Waste Management** | |
| - Continue sampling and characterization of organics and metals in solid wastes, and multi-site field monitoring of disposed wastes. Complete waste management systems analysis. (FY 1988 - $1.0M) | 1.2 |
| - Continue characterization of wastes, waste-related data base maintenance, and program management support. (FY 1988 - $0.2M) | 0.2 |
| **Total FY 1989** | **$31.5** |

## ADVANCED RESEARCH AND TECHNOLOGY DEVELOPMENT

| | (Dollars in Millions) | | | |
|---|---|---|---|---|
| **FUNDING ACTIVITIES** | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
| Coal Utilization Science | $ 4.9 | $ 4.5 | $ 3.1 | -31.1% |
| Materials and Components: | | | | |
| Materials | 6.8 | 6.5 | 5.1 | -21.5% |
| Components | 1.7 | 2.0 | 1.5 | -25.0% |
| Subtotal, Materials and Components | $ 8.5 | $ 8.5 | $ 6.6 | -22.3% |
| Technology Crosscut: | | | | |
| Environmental Activities | 2.2 | 2.4 | 2.6 | +8.3% |
| Technical and Economic Analyses | 2.0 | 1.5 | 2.6 | +73.3% |
| Technology Base Synthesis | 1.8 | 0.0 | 0.0 | |
| International Program Support | 0.0 | 0.0 | 0.7 | |
| Instrumentation and Diagnostics | 1.7 | 1.5 | 1.3 | -13.3% |
| Bioprocessing of Coal | 0.0 | 1.0 | 0.2 | -80.0% |
| Subtotal, Technology Crosscut | $ 7.7 | $ 6.4 | $ 7.4 | +15.6% |
| University/National Laboratory Coal Research: | | | | |
| University Coal Research | 5.5 | 5.5 | 3.9 | -29.0% |
| University/National Laboratory Cooperative Program | 0.0 | 0.0 | 0.4 | |
| Subtotal, University/National Cooperative Program | $5.5 | $5.5 | $4.3 | -21.8% |
| **Total, Advanced Research and Technology Development** | **$26.6** | **$24.9** | **$21.4** | **-14.1%** |

## Background

- The Advanced Research and Technology Development (AR&TD) Program is directed toward the scientific and technical areas that underlie the development of all fossil energy technologies.

- The AR&TD coal utilization science program focuses on mission-oriented fundamental research to increase understanding of the mechanisms of direct coal utilization.

- The AR&TD Program includes generic studies of materials and components and investigations of instrumentation concepts in environments associated with advanced coal technologies.

- The AR&TD Program undertakes feasibility investigation and exploratory research of novel concepts in coal conversion and utilization

- The AR&TD Program differs from the Fossil Energy line programs; the latter have an end-item technology development orientation while AR&TD's mission is to pursue generic research in support of all Fossil Energy coal line programs. It addresses fundamental scientific and engineering problems that are barriers to Fossil Energy technological goals. The AR&TD program is unique in that it is directed to specific scientific and technical areas which are closely connected to long-range Fossil Energy objectives.

- Part of Direct Utilization funding was transferred to Advanced Research within Control Technology and Coal Preparation, Combustion Systems and Fuel Cells to comply with FY 1988 Congressional direction.

| **FY 1989 BUDGET REQUEST** | **Dollars In Millions** |
|---|---|
| • **Coal Utilization Science** | |
| - Continue, at a reduced level, investigations of the formation, transformation and characterization of fuel and combustion product species; coal devolatilization, pyrolysis and volatile char oxidation; and radiant heat transfer. Continue, at a reduced level, studies specific to low-rank coal. Includes in-house research performed by METC and PETC. Continue to fund technical and program management support. (FY 1988 $4.5M) | $ 3.1 |
| • **Materials** | |
| - Continue research on advanced steam cycle alloys, mechanisms of erosion and corrosion, ceramics composites, and advanced aluminides. Continue development of superconducting oxides. Continue to fund technical and management support. (FY 1988 - $6.5M) | 5.1 |
| • **Components** | |
| - Continue efforts initiated in FY87 for controllable letdown and alternate flow concepts. Initiate low pressure turbine flow control, nozzle development, and fluidic fuel injection for diesels and unique flow control concepts. (FY 1988 $0.5M) | 0.6 |
| - Continue fundamental research on solids transport. Continue to fund technical and program management support. (FY 1988 - $1.5M) | 0.9 |
| • **Environmental Activities** | |
| - Continue analyses of issues associated with air and water quality, solid waste disposal, and toxic substances. Continue support of occupational health, quality assurance, and safety compliances services. (FY 1988 - $1.7M) | 1.9 |
| - Continue research conducted under NAPAP with emphasis on quality assurance of data and analytical tools. (FY 1988 - $0.7M) | 0.7 |
| • **Technical & Economic Analyses** | |
| - Continue generic studies supporting multi-year planning, FE strategy and program formulation; conduct contract studies that crosscut a number of FE programs, fund IEA/Coal Research Service activities. Continue coal technology export and linkage studies, planning, and evaluation. (FY 1988 - $1.5M) | 2.6 |

- **International Program Support**
  - Conduct analyses, studies and technical evaluations of the IEA and bilateral agreement activities in which the FE program is involved. (FY 1988 - $0.0M) 0.3
  - Support international collaborative research activities in Fossil Energy. (FY 1988 - $0.0M) 0.4
- **Instrumentation and Diagnostics**
  - Continue investigation of fiber optic sensor combustion probes and spectroscopic hot gas stream analysis techniques. Continue to fund technical and program management support. (FY 1988 - $1.5M) 1.3
- **Bioprocessing of Coal**
  - Continue, at a reduced level of effort, fundamental research in the bioprocessing of coal to gain an improved understanding of the reactions occurring when coal is desulfurized or converted to gases or liquids by biological means. Continue program and management support. (FY 1988 - $1.0M) 0.2
- **University Coal Research**
  - Support approximately 22 new grants at universities on the ongoing research topics including coal science, reaction chemistry, surface science, advanced process concepts, thermodynamics, engineering fundamentals, and environmental sciences; continue encouragement of collaboration between university and industrial researchers. (FY 1988 - $5.5M) 3.9
  - Initiate one joint project involving collaboration of a national laboratory with universities in an area such as enzyme incorporated membrane processes, superconductivity applications in catalysis and beneficiation, supercomputers for molecule design, and laser-induced chemistry. Continue to fund technical and program management support. (FY 1988 - $0.0M) 0.4

**Total FY 1989** **$21.4**

## COAL LIQUEFACTION

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Research | $ 4.5 | $ 6.1 | $ 3.2 | -47.5% |
| Direct Liquefaction | 11.9 | 13.4 | 3.2 | -76.1% |
| Indirect Liquefaction | 6.2 | 6.6 | 2.8 | -57.6% |
| Support Studies/Engineering Evaluation | 1.4 | 1.0 | 1.1 | +10.0% |
| **Total** | **$24.0** | **$27.1** | **$10.3** | **-62.4%** |

### Background

- This program supports basic and applied research to develop advanced technology for the production of synthetic liquid fuels from coal. The Department focuses upon several approaches to produce liquid fuels from coal: direct liquefaction, indirect liquefaction and novel approaches.

| FY 1989 BUDGET REQUEST | Dollars In Millions |
|---|---|
| **Advanced Research** | |
| Continue research on: novel catalytic, biological and other approaches to coal liquefaction; improving the understanding of liquefaction processes; and, on physical, chemical and thermodynamic properties of fossil fuel liquids. (FY 1988 - $6.1M) | $ 3.2 |
| **Indirect Liquefaction** | |
| Continue laboratory research at PETC investigating catalysts/reactor systems to efficiently convert coal derived gaseous feedstocks to gasoline, diesel, or jet fuels. Maintain limited laboratory research with industry and universities on alcohol and hydrocarbon fuel process concepts. (FY 1988 - $6.6M) | 2.8 |
| **Direct Liquefaction** | |
| Continue PETC in-house research. Maintain limited bench scale industrial research in coprocessing and/or staged catalytic liquefaction. (FY 1988 - $5.4M) | 3.2 |
| Completed or discontinued projects: Wilsonville Liquefaction Facility (FY 1988 - $8M) | 0.0 |
| **Support Studies/Engineering Evaluations** | |
| Continue to develop solvent quality characterization and process evaluation information on advanced coal liquefaction processes. Continue novel catalystdevelopment and process studies at Sandia National Lab. (FY 1988 - $1.0M) | 1.1 |
| **Total FY 1989** | **$10.3** |

## COMBUSTION SYSTEMS

(Dollars In Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Research | $ 3.3 | $ 3.4 | $ 2.1 | -38.2% |
| Atmospheric Fluidized Bed Combustion | 3.3 | 2.4 | 1.7 | -20.6% |
| Pressurized Fluidized Bed Combustion | 5.8 | 7.2 | 7.1 | -1.4% |
| Advanced Combustion Technology | 2.8 | 3.5 | 2.7 | -22.9% |
| Alternative Fuels Utilization | 3.2 | 3.7 | 3.8 | +2.7% |
| Limestone Injection Multistage Burners | 0.0 | 5.0 | 0.0 | -100.0% |
| **Total** | **$18.4** | **$25.2** | **$17.4** | **-31.0%** |

## Background

- The Department of Energy has developed a program to increase the contribution and application of the nation's coal resources through the development of acceptable combustion systems and fossil-derived fuels for the marketplace.
- The programs within the overall Combustion Systems activity are: Advanced Research, Atmospheric Fluidized Bed (AFB), Pressurized Fluidized Bed (PFB), Alternative Fuels and Advanced Combustion Technology. Funding for the Limestone Injection Multistage Burner (LIMB) program, conducted by EPA is also part of this activity.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • **Advanced Research** | |
| - Continue studies to examine the fundamental aspects of combustion mechanisms, corrosive behavior and deposition of combustion products. (FY 1988 - $3.4M) | $ 2.1 |
| • **Atmospheric Fluidized Bed Combustion** | |
| - Continue to conduct experimental and analytical erosion studies and AFBC development. (FY 1988 - $0.6M) | 0.6 |
| - Complete bench scale testing for one advanced concept for AFBC. (FY 1988 - $0.9M) | 0.5 |
| - Complete subsystem development testing for one concept within the Special Applications Program. (FY 1988 - $0.9M) | 0.6 |
| • **Pressurized Fluidized Bed Combustion** | |
| - Continue evaluation of PFB components, design alterations and changes in operating parameters to improve systems reliability, reduce costs and enhance environmental performance. (FY 1988 - $0.5M) | 0.7 |
| - Continue modeling studies to predict tube erosion/corrosion and linking criteria. Continue to determine mechanisms for tube wastage alloys for long term testing. Provide technical and program management support. (FY 1988 - $0.5M) | 0.7 |
| - Continue R&D at Morgantown Energy Technology Center on PFB economics, systems analyses, and combustion characterization. Continue technology and economic analysis assessments. Evaluate the use of "nonconventional" sorbents in advance PFB systems. (FY 1988 - $1.9M) | 1.7 |
| - Continue Advanced Concepts Phase II development and maintain project schedule and scope by testing key critical process components such as the circulating bed required to confirm proof-of-concept. (FY 1988 - $3.6M) | 4.0 |
| - Completed or discontinued projects: Grimethorpe follow-on efforts (FY 1988 - $0.5M) | 0.0 |
| • **Advanced Combustion Technology** | |
| - Continue the base program for the development of the most promising advanced combustion systems for retrofit, light industrial, commercial and large residential applications. (FY 1988 - $2.7M) | 2.0 |
| - Continue in-house activities including combustion and system characterization of coal based fuels. This activity also includes data base development for technology transfer to the private sector. Provide technical and program management support. (FY 1988 - $0.8M) | 0.7 |

- **Alternative Fuels Utilization**

| | |
|---|---|
| . Continue identification, formulation and characterization of coal-based fuels in support of the advanced combustion systems program. This activity includes transport, handling and storage studies, and combustion characterization of beneficiated coal based fuels. Continue project management support and international cooperative research. Assess and test deeply beneficiated coals for retrofitting large pre-NSPS coal-fired boilers for acid rain control. Provide technical and program management support. (FY 1988 - $3.7M) | 3.8 |

- **Limestone Injection Multistage Burners**

| | |
|---|---|
| . No activity. (FY 1988 - $5.0) | 0.0 |
| **Total FY 1989** | **$17.4** |

## FUEL CELLS

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Research | $ 1.3 | $ 1.5 | $ 1.0 | -33.3% |
| Phosphoric Acid Systems | 15.5 | 13.2 | 0.0 | -100.0% |
| Molten Carbonate Systems | 7.6 | 11.1 | 3.5 | -68.5% |
| Advanced Concepts | 5.0 | 8.4 | 2.2 | -73.8% |
| **Total** | **$29.4** | **$34.2** | **$ 6.7** | **-80.4%** |

## Background

- The objective of the Fuel Cells program is to support high risk, high payoff technology base development and to assist private industry in developing hydrocarbon fuel conversion technologies to increase the cost effective, efficient and environmentally acceptable use of conventional and alternative hydrocarbon fuels.
- Advanced research, fundamental and generic in nature, is conducted to better understand the basis of the underlying processes involved in fuel cell operation and to explore novel concepts.
- Phosphoric acid systems have reached a near-commercial technical status with large scale testing underway. The Department proposes that any further technology development should be the responsibility of the private sector.
- The technical feasibility of molten carbonate fuel cells operating at approximately 60 percent electrical conversion efficiency (natural gas to busbar) has been forecasted by single cell testing. The complexity and associated capital costs of advanced fuel cell systems are projected to be less than those for first generation phosphoric acid fuel cell systems.
- The solid oxide fuel cell is an advanced, high temperature solid state fuel cell that offers promise in electric utility and in cogeneration applications in industrial and commercial sectors.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • **Advanced Research** | |
| . Continue generic research in basic electrochemistry science (FY 1988 - $1.5M) | $ 1.0 |
| • **Molten Carbonate Systems** | |
| . Continue development of three coal-fueled molten carbonate fuel cell (MCFC) stack technologies and initiate action to select competitively the most promising MCFC technology. (FY 1988 - $10.3M) | 3.3 |

| | |
|---|---|
| - Continue technology base research, coal gasification/MCFC system study, and program management support. (FY 1988 - $0.8M) | 0.2 |
| • **Advanced Concepts** | |
| - Continue development of solid oxide fuel cell (SOFC) technology for a multi-kW generator. (FY 1988 - $6.9M) | 1.6 |
| - Continue evaluation of advanced concepts. Conduct coal gasification/SOFC system analysis and materials characterization and development. Continue program management support. (FY 1988 - $1.5M) | 0.6 |
| **Total FY 1989** | **$ 6.7** |

## HEAT ENGINES

| | (Dollars in Millions) | | | |
|---|---|---|---|---|
| **FUNDING ACTIVITIES** | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
| Gas Turbines | $ 9.0 | $11.0 | $ 6.8 | -38.2% |
| Diesel Engines | 3.1 | 7.0 | 2.2 | -68.6% |
| Total | $12.1 | $18.0 | $ 9.0 | -50.0% |

## Background

- The principal goal of this program is to establish technical data which will enable the private sector to assess the commercial viability of coal-fueled power conversion systems. The program focuses on key technical problems associated with substituting coal or coal-derived gaseous fuels for distillate fuels or natural gas in gas turbine and diesel power conversion systems.
- Applications for this technology include industrial cogeneration, combined cycle electric power generation, repowering of existing generating capacity, and both rail and marine transportation.
- The FY 1989 budget request for Heat Engines is believed to be appropriate given the need to reduce the Federal budget deficit. Because of fiscal constraints, it is not appropriate or necessary to fund multiple approaches in this program area.

| **FY 1989 BUDGET REQUEST** | Dollars in Millions |
|---|---|
| • **Gas Turbines** | |
| - Continue coal-fueled gas turbine integrated systems testing with two contractors. (FY 1988 - $10.2M) | $ 5.8 |
| - Evaluate coal-based liquids in METC pressurized combustor test stand and test gas cleanup device in METC gas turbine combustor. Continue program management support. (FY 1988 - $0.8M) | 1.0 |
| • **Diesel Engines** | |
| - Continue coal-fueled diesel engine integrated system tests with one contractor. Test novel injection combustion and wear from coal-water mixtures and new fuel forms in METC diesel engine test facility and investigate advanced diesel cycles in METC diesel rig. Continue program management support. (FY 1988 - $7.0M) | 2.2 |
| **Total FY 1989** | **$ 9.0** |

## UNDERGROUND COAL GASIFICATION

| FUNDING ACTIVITIES | (Dollars in Millions)<br>FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Gasification Technology Development | $ 1.2 | $ 1.7 | $ 0.0 | -100.0% |
| Environmental and Advanced Research | 1.2 | 1.1 | 0.3 | -72.7% |
| **Total** | **$ 2.4** | **$ 2.8** | **$ 0.3** | **-89.3%** |

### Background

- This program represents viable technologies for in situ conversion of coal to a cleaner burning, easily transportable gaseous fuel.
- Program is directed toward the definition of sufficient technical operational, and environmental parameters to allow industry to make decisions concerning the commercial development of the technology.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| - Continue environmental compliance, restoration, and reclamation activities at historical UCG test sites as required by law. (FY 1988 - $2.8) | $ 0.3 |

## MAGNETOHYDRODYNAMICS (MHD)

| FUNDING ACTIVITIES | (Dollars in Millions)<br>FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Proof-of-Concept Topping Cycle | $16.3 | $21.4 | $ 0.0 | -100% |
| Proof-of-Concept Bottoming Cycle | 7.1 | 8.6 | 0.0 | -100% |
| Proof-of-Concept Seed Regeneration | 0.2 | 0.9 | 0.0 | -100% |
| Systems Studies, Supporting Research and Conceptual Design | 2.9 | 4.1 | 0.0 | -100% |
| **Total** | **$26.5** | **$35.0** | **$ 0.0** | **-100%** |

### Background

- The FY 1988 MHD program began the design, fabrication and testing of "proof of concept" systems in accordance with the June 1984 cost-shared multiyear program. Long duration "proof of concept" testing is needed for the advancement of the MHD technology to the retrofit demonstration stage. A retrofit demonstration stage is needed for the determination of subsequent commercial application.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| - No funds are requested for FY 1989. Since an estimated $172 million (in constant FY 1988 dollars) will be needed over the next five years to complete the "proof of concept" program, DOE believes the MHD program is not affordable in light of fiscal constraints, particularly considering other emerging options. (FY 1988 - $35.0M) | $ 0.0 |

## SURFACE COAL GASIFICATION

| FUNDING ACTIVITIES | (Dollars in Millions)<br>FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Research | $ 2.8 | $ 2.7 | $ 0.7 | -74.1% |
| Systems for Power Production | 14.4 | 11.2 | 0.9 | -92.0% |
| Systems for Industrial Fuel Gas Production | 1.2 | 1.4 | 0.8 | -42.9% |
| Systems for Synthesis Gas Production | 1.8 | 1.9 | 1.3 | -31.6% |
| Systems for Coproducts Production | 4.1 | 5.3 | 0.8 | -84.9% |
| Great Plains Coal Gasification Project | 0.4 | 0.5 | 0.5 | 0.0% |
| Total | $24.7 | $23.0 | $ 5.0 | -78.3% |

## Background

- The coal gasification program is organized to foster the development of advanced gasifier systems for the production of electric power, synthesis gas (for synthetic natural gas, indirect liquefaction, and chemical feedstocks), industrial fuel gas, and coproducts (simultaneous production of solids, liquids, and gases). This activity also provides for basic and fundamental research related to Surface Coal Gasification processes including studies of reaction mechanisms and chemistry. Finally, this program supports the continued management and monitoring of the Great Plains Project.

| FY 1989 BUDGET | Dollars In Millions |
|---|---|
| **Advanced Research** | |
| Complete work on the biological conversion of coal to methane. Complete work on the mechanisms of ash agglomeration in fluidized bed gasifiers. (FY 1988 - $2.2M) | $ 0.6 |
| Complete work on separating hydrogen from synthesized gas using ion exchange membranes. Complete work on the factors controlling cleavage and restoration of bonds. Complete work on study of active carbon site distribution. (FY 1988 - $0.5M) | 0.1 |
| **Systems for Power Production** | |
| Continue studies on entrained flow reactors to reduce process severity and increase efficiency of gasification. (FY 1988 - $0.5M) | 0.4 |
| Continue environmental sampling and analysis to characterize process and effluent streams. Provide technical and program management support. (FY 1988 - $0.2M) | 0.1 |
| Continue development and testing of hot desulfurization in entrained flow reactor system for power generation. (FY 1988 - $2.8M) | 0.4 |
| Completed or discontinued activities: GE project for application of hot gas desulfurization to integrated gasifier combined cycle systems and Waltz Mill pressurized fluidized bed gasifier with hot gas clean-up ( FY 1988 - $6.9M) | 0.0 |
| **Systems for Industrial Fuel Gas Production** | |
| Continue development of economical methods for oxygen production for use in multi-ton/day plants. (FY 1988 - $0.4M) | 0.2 |
| Continue operation of the fluidized bed reactor at METC as well as continuing support for the planning implementation, and application of the gasification data base. Provide technical and program management support. (FY 1988 - $0.6M) | 0.6 |
| Completed or discontinued activities: hydrogen production from low-rank coal and waste water treatment studies (FY88 - $0.8M) | 0.0 |

| | |
|---|---|
| • **Systems for Synthesis Gas Production** | |
| - Continue engineering and technical support for the joint DOE/GRI program. (FY 1988 - $0.4M) | 0.6 |
| - Continue development of a novel concept for the separation of hydrogen from coal derived gas. (FY 1988 - $0.1M) | 0.2 |
| - Continue systems analysis and model development efforts. Provide technical and program management support. (FY 1988 - $0.2M) | 0.5 |
| • **Systems for Coproducts Production** | |
| - Conduct comparative slow and rapid heating rate experiments to establish a matrix of product yields and to investigate product options for coal-based fuels from mild gasification. (FY 1988 - $0.3M) | 0.7 |
| - Continue modeling analysis and system analysis. Provide technical and program management support. (FY 1988 - $0.2M) | 0.1 |
| - Completed or discontinued activities: research for high Btu defense fuels (FY88 - $0.5M) | 0.0 |
| • **Great Plains Coal Gasification Project** | |
| - Conduct environmental compliance activities. Complete post operations assessments and information archiving. Provide administrative closeout expenses. (FY 1988 - $0.5M) | 0.5 |
| **Total FY 1989** | **$ 5.0** |

## PETROLEUM

## ADVANCED PROCESS TECHNOLOGY

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Advanced Exploratory Research | $ 3.3 | $ 3.0 | $ 1.7 | -43% |
| Arctic and Offshore Research | 0.5 | 0.4 | 0.5 | +25% |
| **Total** | **$ 3.8** | **$ 3.4** | **$ 2.2** | **-35%** |

### Background

- The Advanced Process Technology (APT) Program pursues new concepts to achieve major increases in efficiency and cost reduction of recovery techniques for oil, gas, and oil shale. Research goals are:
  - to conduct fundamental research relevant to recovery of oil, gas and shale oil.
  - to pursue application of new concepts which may achieve major increases in the recovery of oil, gas and shale oil resources.
  - to develop a fossil energy-related knowledge base that will improve the economics of fossil fuel production in the Alaskan Arctic and expand the reserves.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • **Advanced Exploratory Research** | |
| · Continue a program of fundamental studies including cross-cutting research in petroleum chemistry focusing on structural characterization and determination of a structure-property relationship of heavy crudes, intermediate process streams, products, and byproducts. (FY 1988 - $0.8M) | $ 0.6 |
| · Continue, at a reduced level, research on geoscience and extraction technology and development of advanced instrumentation to measure reservoir characteristics and thermal fronts. ($2.0M) | 1.0 |
| · Continue, at a reduced level, research on pollutants in aquifers adjacent to oil, gas, and shale in-situ recovery operations.<br>· Continue funding for technical and program management support. (FY 1988 - $0.2M) | 0.1 |
| • **Arctic and Offshore Research** | |
| · Continue generation and acquisition of research data on ice island motions and ice flow interactions with structures; continue Arctic/Offshore oil and gas research and information identification. Continue funding for technical and program management support. (FY 1988 - $0.5M) | 0.5 |
| **Total FY 1989** | **$ 2.2** |

## ENHANCED OIL RECOVERY

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Heavy Oil | $ 2.4 | $ 3.7 | $ 4.0 | +8.1% |
| Light Oil | 7.2 | 9.9 | 13.0 | +31.3% |
| Tar Sands | 1.6 | 2.0 | 0.0 | -100.0% |
| Pilot Venture Program | 0.0 | 1.0 | 0.0 | -100.0% |
| **Total Enhanced Oil Recovery** | **$11.2** | **$16.6** | **$17.0** | **+2.4%** |

## Background

- Enhanced oil recovery represents a technology that can fill the gap between now and the critical time when the nation will likely rely more extensively on synthetic fuels (also being developed by our Oil Shale, Tar Sands, and Liquefaction programs).

- The Department of Energy has developed a program to conduct generic technology base R&D activities; develop fundamental knowledge that can lead to improved and new process concepts; and to assist industry in obtaining a better understanding of the mechanisms and behavior of advanced and novel EOR processes for the recovery of presently unrecoverable light oil, heavy oil and tar sand resources.

- FY 1989 funding will concentrate upon heavy and light oil recovery research. Developing advanced oil recovery techniques is a major initiative of the Fossil Energy R&D program for FY 1989.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • **Heavy Oil** | |
| · Continue basic research in mobility control mechanisms of steamflood additives. Define the mechanisms by which foam increases oil recovery and develop analytical and numerical models. Develop relative permeability and capillary pressure data. (FY 1988 - $0.4M) | $ 1.5 |

| | |
|---|---|
| - Continue cooperative research with Venezuela on petroleum characterization and recovery studies and expand technical and analytical assessments related to geoscience and reservoir characterization. (FY 1988 - $0.2M) | 0.5 |
| - Continue a geoscience characterization program, research in novel extraction approaches to presently deemed unrecoverable, heavy oil resources, and fundamental studies of reservoir characteristics and injection fluid interactions. Provide technical and program management support. (FY 1988 - $1.5M) | 2.0 |
| • Light Oil | |
| - Continue a broad based program of research in light oil recovery techniques for reservoir description and conduct related planning, technical and analytical assessments. (FY 1988 - $3.6M) | 4.2 |
| - Continue a geoscience effort and reservoir characterization and related fundamental studies addressing definition of reservoir structure and composition. (FY 1988 - $2.5M) | 3.7 |
| - Continue microbiological studies and explore the feasibility of other novel methods of extraction of residual oil resources. (FY 1988 - $1.0) | 1.1 |
| - Continue a research program that utilizes $CO_2$ and other gas recovery methods in a variety of situations to study and identify displacement mechanisms requisite to efficient, effective and predictable application of these techniques. (FY 1988 - $0.6) | 1.8 |
| - Continue industry/state cooperative work to rapidly demonstrate lab scale EOR concepts in mature fields. Develop retrofit technology to reduce stripper well costs. Provide technical and program management support. (FY 1988 - $1.9) | 2.2 |
| **Total FY 1989** | **$17.0** |

## OIL SHALE

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| | (Dollars in Millions) | | | |
| Oil Shale Technology Base | $ 7.7 | $6.7 | $0.7 | -89.6% |
| Environmental Mitigation | 3.2 | 2.8 | 0.3 | -89.3% |
| **Total Oil Shale** | **$10.9** | **$9.5** | **$1.0** | **-89.5%** |

## Background

- Oil shale technology development represents the development of extraction and conversion processes designed to convert oil shale to a state of liquid fuels.
- The Department of Energy has developed a program to provide a sound technological basis for reduction of economic and environmental constraints to industrial development of the U.S. oil shale resources and to increase the amount of resources that may be used economically. The program will focus on basic research using reference shales to systematically study the chemistry, kinetics, and emissions related to eastern and western shale processing.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • Oil Shale Technology Base | |
| - Continue experiments with reference shales in various generic fast heat-up lab-scale retorts, with mechanistic modeling support. Continue developing a systems analysis capability as well as continuing development and maintenance of an oil shale data base. Provide technical and program management support. (FY 1988 - $2.8M) | $ 0.7 |
| • Environmental Mitigation | |
| - Continue analytical methods development, studies of mechanisms of pollutant generation and fate, process stream characterization, and development of an environmental data base. Conduct planning, technical, and analytical assessments. Provide technical and program management support. (FY 1988 - $0.3M) | 0.3 |
| Total FY 1989 | $ 1.0 |

## GAS

## UNCONVENTIONAL GAS RECOVERY

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Eastern Gas Shales | $0.9 | $ 2.3 | $ 0.3 | -87.0% |
| Western Tight Gas Sands | 5.4 | 3.3 | 0.3 | -90.9% |
| Environmental and Advanced Research | 1.7 | 4.9 | 1.1 | -77.6% |
| **Total Unconventional Gas Recovery** | **$8.0** | **$10.5** | **$ 1.7** | **-83.8%** |

### Background

- This program fosters the development of advanced technologies for the extraction of natural gas from currently unrecoverable gas resources by reducing the uncertainty surrounding the potential magnitude of reserves of the unconventional gas resources and the conditions under which they will be produced. The program will develop technologies to the point where concepts are proven and economics established.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • Eastern Gas Shales | |
| - Continue in-house support to maintain and update the technical data base and research with associated reservoir and stimulation models; continue systems analysis in support of production strategy development. (FY 1988 - $2.3M) | $ 0.3 |
| • Western Tight Gas Sands | |
| - Continue in-house support to update predictive reservoir and stimulation models; expand technical data base. Continue systems analysis in support of production strategies and also forecasts of regional production patterns in light of multi-well results and reservoir heterogeneity. (FY 1988 - $3.3M) | 0.3 |

| | Dollars In Millions |
|---|---|
| - **Environmental and Advanced Research** | |
| - Continue in-house geologic, geophysical and geochemical studies in support of a program to explore deep source gas generation potential of organics subducted due to plate tectonic convergence. (FY 1988 - $0.2) | 0.3 |
| - Continue research to explore, on a fundamental basis, geophysical and geochemical properties of gas hydrates and to examine gas hydrate recovery strategies based on an understanding of the gas release mechanisms. Conduct in-house technology assessment of processes to convert natural gas to liquids. Provide technical and program management support. (FY 1988 - $4.6) | 0.8 |
| **Total FY 1989** | **$ 1.7** |

## COOPERATIVE R&D VENTURES

(Dollars In Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Cooperative R&D Ventures | $0.0 | $0.0 | $9.0 | n/a |

## Background

- The Administration proposes to initiate a multiyear two-phase program for cooperative research and development ventures in fossil energy technologies.
- The first phase would provide immediate support to those ventures which are currently ready to proceed, and would require approximately $27 million over an estimated four-year period.
- The design of the first phase could be based, in part, on experiences obtained from the pilot cooperative R&D venture activity considered under the Enhanced Oil Recovery program.
- The second phase, in which awards would be made in FY 1990, would support a subsequent set of ventures which will be defined and organized by potential participants in the intervening period. Additional funds beginning in FY 1990 would be required for this second phase.
- The FY 1989 budget request proposes $9,000,000 to enable the Department to join with private sector participants in the formation of cooperative research and development ventures which address precompetitive stages of fossil energy technology development, and in which the non-federal venture partners contribute over 50 percent of the venture funding.

| FY 1989 BUDGET REQUEST | Dollars In Millions |
|---|---|
| - Cooperative R&D Ventures | |
| - Provide financial assistance awards for cost-shared cooperative R&D ventures that can ease the level of future oil imports by focusing on the development of technologies that satisfy mission objectives to increase the effective domestic resource base for moderately-priced liquid and gaseous fuels; and to increase the contribution of coal by improvements in environmental, technical and economic performance in industrial and large commercial applications currently dominated by oil and gas. Under the Phase I program, higher priority would be given to the first of the above two areas. (FY 1988 - $0) | $8.9 |

| | |
|---|---|
| - Provide support for preparing and issuing Phase I solicitation and Phase II Statements of Interest. Monitor activities, and assist parties interested in establishing potential ventures. (FY 1988 - $0) | 0.1 |
| **Total FY 1989** | **$9.0** |

## PROGRAM MANAGEMENT & CAPITAL EQUIPMENT

### PROGRAM DIRECTION & MANAGEMENT SUPPORT

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Headquarters Program Direction | | | | |
| Salaries and Benefits | $ 8.0 | $ 9.1 | $ 8.4 | -7.6% |
| Travel | 0.6 | 0.5 | 0.3 | -40.0% |
| Contract Services | 3.0 | 4.4 | 1.0 | -77.2% |
| Subtotal, Headquarters Program Direction | $11.6 | $14.0 | $ 9.7 | -30.7% |
| ETC Program Direction | | | | |
| Salaries and Benefits | $17.5 | $19.0 | $13.5 | -28.9% |
| Travel | 1.0 | 1.0 | 0.6 | -40.0% |
| Contract Services | 28.5 | 27.8 | 11.0 | -60.4% |
| Subtotal, ETC Program Direction | $47.0 | $47.8 | $25.1 | -47.4% |
| Federal Inspector for the Alaskan Natural Gas Transportation System | $ 0.2 | $ 0.2 | $ 0.2 | 0.0% |
| **Total Program Direction** | **$58.8** | **$62.1** | **$35.0** | **-43.6%** |

### Background

- This activity provides funding for salaries, benefits and overhead expenses for the management of FE programs at Headquarters and the Energy Technology Centers:

  - The Headquarters staff is responsible for overall program direction which implements DOE policy and communicates that policy to the Energy Technology Centers, sets program objectives, develops program plans and evaluates alternative program strategies, develops and defends budget requests to the Office of Management and Budget and to the Congress, approves procurement plans, monitors work progress, evaluates projects, approves revisions in work plans as required to attain program goals, and supports the new Office of Geoscience Research.

  - The Energy Technology Centers support day-to-day project management functions for assigned programmatic areas including contract and National Laboratory monitoring, development and maintenance of project budget, procurement plans, and other activities related to program and site support.

  - The Office of the Federal Inspector for the Alaska Natural Gas Transportation System is responsible for coordinating all Federal activities pertaining to the pipeline in order to assure timely, efficient, safe, and environmentally sound construction, including the assessment of developments in the world energy market, specifically the U.S. and Canadian oil and gas situation as they affect the Alaska Natural Gas Transportation System.

| FY 1989 BUDGET REQUEST | Dollars in Millions |
|---|---|
| • **Headquarters Program Direction** | |
| - Provide funds for salaries and benefits of 125 full time-equivalent (FTE) personnel at Headquarters. This staff implements and communicates policy to the ETC's, sets program objectives, develops program plans and evaluates alternative strategies; develops and defends budget requests; approves procurement plans, monitors work programs. (FY 1988 - $9.1M) | $ 8.4 |
| - Provide funds for travel of 125 FTEs in support of the activities stated above. Both domestic and international travel is conducted. (FY 1988 - $0.5M) | 0.3 |
| - Provide for contractual services that are generic to the entire FE program. Included are items such as printing, computer services, technical support services, conferences, etc. (FY 1988 - $4.4M) | 1.0 |
| • **ETC Program Direction** | |
| - Provide funds for salaries and benefits of the ETC staff of 243 FTEs. Activities of the staff include contract and lab monitoring; development and maintenance of project, budget and procurement plans, and other activities related to program and site support. (FY 1988 - $19.0M) | 13.5 |
| - Provide funds for travel of 243 FTEs in support of the coordination of the above activities in the attainment of program goals, both on the domestic front and abroad. (FY 1988 - $1.0M) | 0.6 |
| - Provide funds for facility operations, maintenance, finance and administrative support and other costs not appropriately chargeable to R&D projects, in support of this level of FTE's. (FY 1988 - $27.8M) | 11.0 |
| • **Federal Inspector for the Alaskan Natural Gas Transportation System** | |
| - Provide funds for administrative and support functions; continue to assess developments in U.S. and Canadian energy markets and maintain liaison with project sponsors, producers, other government agencies, State of Alaska and Canadian government. (FY 1988 - $0.2M) | 0.2 |
| **Total FY 1989** | **$35.0** |

## PLANT AND CAPITAL EQUIPMENT

(Dollars in Millions)

| FUNDING ACTIVITIES | FY 1987 | FY 1988 | FY 1989 | % Change from FY 1988 |
|---|---|---|---|---|
| Capital Equipment | $ 1.6 | $ 0.5 | $ 0.0 | -100.0% |
| Construction | 1.8 | 17.7 | 0.5 | -97.1% |
| **Total Plant and Capital Equipment** | **$ 3.4** | **$18.2** | **$ 0.5** | **-97.3%** |

## Background

- Capital equipment is purchased annually to replace obsolete equipment so that the Energy Technology Centers (ETCs) and the National Laboratories analytical capabilities are constantly being upgraded.

- General plant projects are essential to the safe, efficient operation of the ETCs and construction is dedicated to a number of improvements, alterations and additions at each of the ETCs.

| **FY 1989 BUDGET** | Dollars in Millions |
|---|---|
| • **Capital Equipment** | |
| · No Activity. (FY 1988 - $0.5M) | $ 0.0 |
| • **Construction** | |
| · Continue design of chemical engineering laboratories project at PETC. (FY 1988 - $0) | 0.5 |
| **Total FY 1989** | **$ 0.5** |

## INTRODUCTION OF ASSOCIATES

Mr. WAMPLER. Mr. Chairman and members of the subcommittee, it is again a pleasure to appear before this Subcommittee. I have with me at the table Mr. Donald Bauer, my Principal Deputy, and Mr. Jeremiah Walsh, the Deputy Assistant Secretary for Management. There are other key staff members present that, with the subcommittee's permission, I may ask to assist me in answering some of your more detailed questions.

I also appreciate the subcommittee's consideration by including my formal statement in the record and permitting me to summarize its key points.

## FOSSIL ENERGY BUDGET

The budget we have submitted to you is one we believe is necessarily aggressive in those areas where a more near-term emphasis is warranted, such as in the demonstration of clean coal technologies as the centerpiece of the administration's response to concerns over acid rain, and in the area of enhanced oil recovery where we have undertaken several new initiatives and have proposed a fiscal year 1989 level that is significantly larger than previous requests.

Our proposed budget is also technically sound. It emphasizes those areas where we continue to build a solid base of scientific and technical expertise, in areas such as coal, oil, and gas-related research and development.

And equally important, Mr. Chairman, it is an affordable budget. The items contained in our request have been balanced against a host of pressing, and often competing priorities. Admittedly, there is a wealth of project ideas and concepts that could be legitimate and worthwhile candidates for Federal funding.

We have subjected these ideas and concepts to a rigorous screening process. Those that have emerged, and which are contained in this budget proposal, represent those that we believe are of highest priority to the continued advance of fossil fuel technology. They are the programs and projects we believe will help move the technology of coal, oil, and gas into the 21st century.

As I have outlined in my formal statement, our budget request is made up of two major components: the clean coal technology initiative and the Fossil Energy Research and Development Program. The two are complementary but have distinctly different orientations.

## CLEAN COAL PROGRAM

As the subcommittee is aware, the clean coal program is intended to provide Federal matching funds to demonstrate the commercial viability of a new generation of environmentally improved, high efficiency coal technologies.

The outcome of this program will be a new suite of coal combustion and pollution control facilities that will be unmatched by any nation in the world, each project providing the performance data and operational experience necessary for the private sector to make future deployment decisions.

The clean coal program is now well underway. It is an effort in which both the Congress and the administration can take justifiable pride. The President's initiative incorporates a portion of, and builds onto, an ongoing $400 million effort approved by Congress in fiscal year 1986.

Let me interject at this point, Mr. Chairman, my personal appreciation for your willingness, and the willingness of your staff, to cooperate in fashioning this bipartisan effort. You have recognized the importance of the clean coal program not only in terms of its benefits to the domestic coal industry but also in terms of this country's role as an environmental leader. Simply put, Mr. Chairman, this program would not be where it is today had it not been for your foresight and leadership.

The budget for this program in fiscal year 1988 and 1989 is $575 million, an amount that reflects last year's congressional approval of the first increment of the President's $2.5 billion, 5-year initiative.

As the chart on page 1 of my formal statement shows, $536 million of these funds have been made available for project financing. On February 22, the Department issued its second solicitation for clean coal technology projects. Proposals are due on May 23, and we expect to select projects by late summer.

A second aspect of the clean coal budget proposal is our request for advance appropriations for the remaining $1.78 billion to complete the President's initiative.

We remain committed to the full scope of the clean coal program and, consequently, we are requesting that Congress restore full funding for the program by appropriating, in advance, $575 million for fiscal year 1990, $600 million for fiscal year 1991, and $600 million for fiscal year 1992.

Advance appropriations are important for two principal reasons:

One, it is important for the United States to demonstrate its commitment to the full implementation of the special envoys' report on acid rain. This is necessary both in our international relations and in assuring domestic firms that the Government is prepared to stand behind its commitment to cost sharing.

Second, it is important from an R&D perspective. Several promising clean coal concepts are now in the R&D pipeline. Many are not sufficiently mature to compete for clean coal funds today but they could be considered as candidates within the next 2 to 3 years.

For their development to continue today, with as much private financing as possible, sponsors need to have confidence that the Federal commitment and the necessary cost-sharing funds will be available to take the final step at the end of their development phase. Funding for the clean coal program, therefore, serves as a stimulus for continued private R&D today.

### FOSSIL ENERGY RESEARCH AND DEVELOPMENT

The clean coal program is certainly one of the most visible parts of our fossil energy program, but it should not overshadow the second component of our budget: the core R&D effort.

The $168 million we are proposing for coal, oil, and natural gas research and development is a 53-percent reduction from the amount appropriated in fiscal year 1988. But in many ways, Mr. Chairman, that number is misleading. Fully one-half of the proposed reduction can be attributed to the phaseout of four projects that have achieved their objectives—these are the Wilsonville and LaPorte liquefaction projects, the Waltz Mill gasifier facility, and the phosphoric acid fuel cell program—and our recommendation to cease funding for the MHD program.

It is also important to look at our 1989 budget request in context with our request of last year. By this comparison, our budget would increase by $176 million. Six of nine major categories in the coal program would increase in funding.

The Enhanced Oil Recovery Program would increase by more than 75 percent. We also have substantially boosted our request for geosciences research.

In other words, Mr. Chairman, we have arrived at a budget recommendation that strengthens those areas that needed strengthening and deemphasizes those areas where goals have been achieved and targets met.

I hope that in our discussion this morning we can present a convincing case that this budget is technically prudent and fiscally sound. We hope to show that this budget will be effective in continuing the significant advances that have been made in fossil energy technology in the last several years.

Mr. Chairman, that completes my opening summary. I would be pleased to answer any questions that the subcommittee may have.

Thank you.

Senator BYRD. Thank you, Mr. Secretary.

### COAL AS ENERGY RESOURCE

I have said it a good many times and I will say it again: Coal is America's most abundant energy resource. We have three times more energy than the known oil reserves of the entire world in our coal reserves. We have enough coal to sustain us for at least 300 years at our present rate of usage.

Coal represents only about 23 percent, I believe, of our domestic energy consumption.

Is that an accurate figure, Mr. Secretary?

Mr. WAMPLER. Yes; it is.

Senator BYRD. Coal is our greatest energy resource, by far, but it accounts then for less than one-fourth of our energy needs.

There is an area in which I strongly believe that the administration has reduced the torch of leadership to but a faint ember. I am referring to this administration's weak support for research and development of new methods to use coal cleanly and also in ways that it can be commercially used now.

America's largest vulnerability to energy supply disruptions continues to be our dependence on foreign oil. The Secretary's energy security report to the President, March 1987, states—and I quote:

> For much of U.S. history, coal was this country's primary fuel source. It has been mined here commercially for more than 240 years. It was the Nation's major fuel during the industrial expansion of the late 19th century, providing nearly 90 percent of all U.S. energy from mineral fuels in 1910.

We have certainly come a long way from 1910, but in some ways we are going in the wrong direction. There is much that coal can do to reduce our vulnerability in the transportation sector. Unfortunately, the administration, despite its rhetoric, has not requested the research funds necessary to support a significant contribution by coal in this area. We will discuss coal's potential later, during the fossil research portion of this hearing.

The Congress has appropriated a total of $973 million for clean coal technology demonstrations to date. Of this amount, $397 million was appropriated in fiscal year 1986 for the first solicitation of utility and industrial cost-shared demonstration projects. Another $575 million was appropriated for the second such solicitation this fiscal year.

### STATUS OF CLEAN COAL SOLICITATION

Would you review the status of the first clean coal solicitation for the subcommittee?

Mr. WAMPLER. I would be glad to, Mr. Chairman.

Under clean coal No. 1, cooperative agreements have currently been signed with seven projects and they are at various stages in their development. I can submit that for the record.

We had two projects that dropped out. We have reselected from the B list, four projects. Negotiations are currently underway with those four projects.

[The information follows:]

## CURRENT STATUS OF THE CLEAN COAL TECHNOLOGY-1 PROJECTS

The Clean Coal Technology Program now has seven cooperative agreements for projects that are underway. The activities completed or in progress on each of the seven projects include the following:

American Electric Power Service Corp., (TIDD PFBC demo plant): cooperative agreement signed March 1987; continuation into phase 2 (procurement, construction, and startup) approved December 1987; project remains on schedule and within budget; fabrication of pressure vessel progressing on schedule in B&W shop in Mount Vernon, IN; ash disposal permit received from Ohio EPA; and groundbreaking ceremony held April 6, 1988.

Babcock & Wilcox Co., (LIMB demo project): cooperative agreement signed June 1987; B&W began phase 1 by completing design of coolside system started by EPA; critical items needed for shutdown window, and long-lead time items were ordered in phase 2A; facility scheduled for high sulfur coal testing on the EPA test series during July 1988 to January 1989 period; DOE test program scheduled to begin in February 1989; and a 40-percent design review was held April 28, 1988.

Energy & Environmental Research Corp., (gas reburning project): cooperative agreement signed July 1987; participants review meeting held December 1987 at GRI offices in Chicago; EER completed a series of 2-week process engineering studies at each of three host sites—no serious problems found; environmental information volumes on Hennepin and Springfield sites have been supplied by EER to DOE; and technical review and industry advisory panel meetings were held March 15–16, 1988.

M.W. Kellog Co., (IGCC project): cooperative agreement signed January 1988; phase 2A—preliminary engineering and analysis just underway; and first major project team meeting held February 1988.

Coal Tech Corp., (advanced combustor demo): cooperative agreement signed March 1987; phase 1—equipment selection, environmental permitting completed July 1987; phase 2—equipment installation and shakedown testing completed November 1987; phase 3—100 hours operational testing completed on 2 percent sulfur coal, $SO_2$, and $NO_x$ reductions observed; and operational problem experienced in March—cause is under evaluation.

Energy International, Inc., (underground coal gasfication): cooperative agreement signed December 1987; NEPA environmental review resulted in finding of no significant impact—February 1988; phase 1 startup activities underway; and first quarterly review meeting held March 16, 1988.

Ohio Ontario Fuels, Inc., (coal-oil coprocessing): cooperative agreement signed December 1987; phase 1A organizational and planning activities initiated; first major project team meeting held January 1988; and first quarterly review meeting held April 19–20, 1988.

## CLEAN COAL PROJECTS IN NEGOTIATION

Senator BYRD. Those four projects were selected from the B list last October; is that correct?

Mr. WAMPLER. Yes, sir; they were selected from the B list.

Senator BYRD. And which projects are still in negotiation?

Mr. WAMPLER. The projects that are in negotiation at this time are the advanced slagging combustor that was proposed by TRW; the West Virginia clean energy project that was proposed by Foster Wheeler & Consolidation Coal Co.; a Corex demonstration project that was proposed by the Minnesota Department of Natural Resources; and the NUCLA circulating fluidized bed project that was proposed by Colorado Ute.

Senator BYRD. And when do you expect these negotiations to be complete?

Mr. WAMPLER. They vary according to project, but in no case do we expect the milestones to go out any further than the end of September of this year. They will start completing negotiations, according to the milestones, in July—from July to September, depending on the project.

Senator BYRD. Should the four projects not go forward, how many projects would remain on the B list?

Mr. WAMPLER. We have five that are remaining on the B list at this point in time.

Senator BYRD. Are you satisfied that there are a number of projects worthy of demonstration among these unselected candidates?

Mr. WAMPLER. Yes, Mr. Chairman; we are.

Senator BYRD. What has been accomplished under the clean coal program to date—not just the projects that have been selected—but what should these projects mean in terms of the accelerated introduction of the technologies being demonstrated; savings to ratepayers, compared to convention technologies in commercial use; the impact on industrial competitiveness and jobs; and the environmental benefits?

Mr. WAMPLER. Of the fairly broad list of technologies that we are currently demonstrating, we are demonstrating technologies that definitely will be more economic, more efficient, more environmentally responsive than the state-of-the-art technology that we are currently using.

We can also use these technologies, many of them, in all of the energy-consuming sectors. We are looking at a significant 47-percent increase in direct coal use between 1986 and the year 2010. We expect to find a large market for these technologies. If you look at the utility market, we are looking at new coal-generating capacity that we are projecting to be 414 gigawatts by the year 2010.

We are also looking at these technologies penetrating the market that is currently held by existing oil and gas capacity. And we are looking, with some of these technologies, at the replacement or repowering of existing coal-fired generating capacity with higher efficient units that increase the efficiency substantially.

We are also looking at a nonutility sector where very little coal today has been used. Some of these clean coal technologies offer the opportunity to make coal competitive in those sectors with oil and gas, and I am talking about the light industrial, commercial, residential market and the transportation sector.

We also see a very significant opportunity for technologies demonstrated under this program to compete in international markets and to even be linked with U.S. coal exports.

The repowering study that the Department did shows the potential, just through normal market forces, for great decreases in sulfur dioxide emissions as a result of some of these technologies also that we are currently developing.

Senator BYRD. Mr. Secretary, if you could elaborate on that now for the record, flesh it out and give it more detail.

Mr. WAMPLER. I would be glad to.

[The information follows:]

### BENEFITS AND ACCOMPLISHMENTS OF THE CLEAN COAL PROGRAM

The benefits of the CCT Program are extensive. The suite of technology options that are now being brought to commercial readiness will help resolve, in the most cost-effective manner possible, the conflict between coal use and protection of the environment. Advanced, clean burning coal technologies will come to the forefront that will markedly expand private sector options for repowering and new plant construction, as well as provide an array of cost-effective emission control options for existing plants. Technical improvements to become available as a result of the CCT Program include: more effective precombustion coal cleaning processes; new combustion techniques that remove sulfur and nitrogen pollutants inside the coal furnace; improved scrubber systems capable of removing sulfur and nitrogen pollutants without producing the wet sludges of today's technology; advanced energy concepts that produce clean-burning fuels, such as coal-based liquid products or combustible gases from unminable coal seams; and highly efficient, environmentally clean, coal-based combined-cycle powerplants that can be fabricated easily and quickly in a wide range of modular sizes.

The common theme of the program is using domestic coal more efficiently while protecting the environment. Clean coal technologies offer the opportunity to produce usable energy at costs much lower than today's technologies. Several of the concepts have the added advantage of boosting an existing powerplant's electrical output, possibly forestalling expensive investments in new power-generating capacity. In addition, the program has the potential to improve the international competitiveness of U.S. technologies and to increase U.S. coal exports.

The Department has now successfully negotiated seven cooperative agreements with the private sector and has initiated negotiations on four additional projects. Clean coal technology areas being demonstrated or being considered for award include pressurized and atmospheric fluidized bed combustion, limestone injection multistage burner [LIMB] combustion, and advanced cyclone combustion projects, gas reburning/sorbent injection, coal liquefaction, underground coal gasification, integrated gasification combined cycle [IGCC] power generation, and an advanced ironmaking project. Four projects are currently in phase 1 (design), three projects have proceeded into phase 2 (construction), and one project is in phase 3 (operation). Four projects have completed the NEPA process.

### SECOND CLEAN COAL SOLICITATION

Senator BYRD. The second clean coal solicitation will close in about 5 weeks, I believe. Is that right?

Mr. WAMPLER. Yes, on May 23.

Senator BYRD. As I have already noted, the Congress appropriated $575 million for demonstration projects under this solicitation.

Do you have an estimate of the maximum number of responses to the solicitation required for a sound competitive program to use the full $575 million?

Mr. WAMPLER. We are looking at projects that vary quite a lot in terms of size, dollars, and cost sharing. For example, an average retrofit project would be for $15 to $25 million in total cost. If you look at the repowering projects, they average from $75 to $175 million in total cost. And we base this on the statements of interest that we have received earlier this year. So we are looking at 15 to 20 projects for negotiation that would be spread among retrofit and repowering technologies would require all of the available funding.

Senator BYRD. It would?

Mr. WAMPLER. Yes, sir; it would.

Senator BYRD. So if there is a response comparable to the one we had on the first solicitation, in the range of 15 to 20 as you have indicated, you will have a very competitive clean coal program with a large number of excellent, but unfunded, projects.

Is that about correct?

Mr. WAMPLER. That is right.

We consider anything over the general number of 20 to be in excess of the funding that we will have available and we have every reason to believe that we will get considerably more projects than the 20 that I just stated as being necessary for a good competitive program.

Senator BYRD. Now, would you elaborate on the timing and the process for selection of the projects under the second solicitation?

Mr. WAMPLER. I think we have carefully planned for this program. We have made a great deal of use of lessons learned in the first.

The process is essentially the same as normally followed by any large solicitation of the Department. However, this program is more complex because we do anticipate a very large number of proposals and a diversity of technologies.

We have lined up somewhere over 100 people at headquarters in the Department to carry out this process. Proposals are due, as you said, the last of May. We are required to select projects by the last of October. We expect to certainly meet that deadline and we are working right now toward an accelerated deadline of perhaps as much as 30 days for selection of the projects. So we feel that we have done the proper planning for this solicitation and we have certainly dedicated an incredible amount of manpower to it. So we think we are well underway to meeting all of the deadlines.

## REPAYMENT PROCEDURES

Senator BYRD. One of the major points of contention with reference to the first clean coal solicitation was the repayment requirement. The repayment procedures in the clean coal 2 solicitation this past February have also caused some consternation among potential private sector partners.

Would you explain the change made within the last few days to assuage industry criticism?

Mr. WAMPLER. Mr. Chairman, we did make an attempt to design a very simple formula for clean coal No. 2 for recoupment. That is, we based it on a very small percentage of revenues from future sales of equipment and licenses of the demonstration technology. We also tried to base it on the way that the private sector does business in terms of sales and licenses.

We immediately received some concerns that the burden of repayment would fall predominantly on the equipment developer and that the scope of the demonstration technology on which repayment was to be based was not defined, or was defined by the Department itself.

In response to those concerns, we amended the program opportunity notice, and we feel that we have designed a very flexible repayment provision that is based on any source of revenue that is proposed by the successful offeror that will yield no more in payments to DOE than the original formula would have yielded.

We also have clarified what the scope of the demonstration technology on which you base repayment will be, instead of being arbitrarily determined by the Department of Energy, it will be an issue that is mutually established by DOE and the participant after we make the selection and prior to making the award. So we think we have gone a long way toward meeting those concerns.

### CLEAN COAL 2 REPAYMENT PROCEDURES

Senator BYRD. Won't the late notification, coming only 1 month before the solicitation's closing date, cause some reduction in the number of proposals submitted?

Mr. WAMPLER. Mr. Chairman, we have indications that there is a lot of enthusiasm for the ICCT solicitation and that many organizations are planning to submit proposals. We also believe that DOE has been responsive to questions and concerns raised by the public. We know of no impressions that any DOE actions might cause a reduction in the number of proposals received.

Senator BYRD. What are you doing to counteract any dampening of industry's enthusiasm caused by the earlier repayment proposal?

Mr. WAMPLER. Mr. Chairman, we have recently amended the PON. Specifically, while making certain that the amount of repayment would be no greater than that under the original formula, we made it clear that the participant could propose repayment from any revenue source. The amount of repayment is based on a percentage of sales and licenses of the equipment embodied in the demonstration technology. We clarified that the envelope defining the demonstration technology will be mutually established by DOE and the participant after selection and prior to award.

Senator BYRD. Traditionally, the Assistant Secretary has set policy in the Washington office and executed that policy through the field.

Have you modified that procedure during your tenure at the Department?

Mr. WAMPLER. I don't think so. I think we have made some minor adjustments to that policy, but we have no intention of changing the policy that the field is the implementing arm of the organization, and that it will remain as such as long as I am at the Department.

### EMPLOYMENT

Senator BYRD. What about the employment? Most of the employment for the fossil and clean coal program, is that done at Morgantown and Pittsburgh, rather than here at headquarters?

Mr. WAMPLER. The employment, Mr. Chairman?

Senator BYRD. Yes.

Mr. WAMPLER. Let me give you an example of what we are looking at in the distribution of the new clean coal FTE's. That probably gives you a better example than anything else I could give you, and I will give you for the record the distribution of all this.

We requested for 1989, 58 FTE's. Twenty-six of those FTE's will be at headquarters. This is because of the front-end ramping up for the solicitation. We intend to assign 16 to each of the energy technology centers.

But if you look at 1990, our preliminary planning at this point would be to request an additional 2 for headquarters, but ramp the field up to 36 FTE's at each of the energy technology centers. So you can see what we are doing is, we are ramping up at headquarters to get through the solicitation, which is mostly headquarters work. Then, in the project implementation phase of the program, we intend to ramp up heavily at the energy technology centers because they will be the ones that implement the program.

Senator BYRD. The statement of the managers accompanying the fiscal year 1988 continuing resolution directed that 58 new positions and nearly $4 million be made available for administration of the Clean Coal Technology Program. The managers recommended another $16,520,000 for the contract costs related to project selection and negotiation. The budget justification shows 45 FTE's for the clean coal program this year.

Is this lower FTE figure a reflection of the time that it takes to fill the 58 new positions?

Mr. WAMPLER. Yes; it is.

Senator BYRD. How many of the new positions have been filled to date?

Mr. WAMPLER. Forty-two of those positions have been filled to date.

Senator BYRD. And when will the remaining 16 positions be filled?

Mr. WAMPLER. They are in process right now, and we are moving forward as aggressively as we can. I can perhaps furnish you a more definitive answer for the record, but just as soon as we can possibly fill them under the processes we use at the Department.

Senator BYRD. All right, if you will do that.

[The information follows:]

### CLEAN COAL STAFFING

The Department currently has 42 employees on-board in the clean coal program. In addition, recruit actions are currently in process to fill all of the remaining positions. It is expected that all 58 positions will have been filled sometime during the fourth quarter of this fiscal year.

### DISTRIBUTION OF POSITIONS

Senator BYRD. How will the 58 positions, the 42 that have been filled and the remaining 16, be distributed among headquarters and the energy technology centers at Morgantown and Pittsburgh?

Mr. WAMPLER. For the fiscal year 1989 budget, 26 will be at headquarters and 16 at the Morgantown center and 16 at the Pittsburgh center.

As I have indicated, we expect that ratio to change dramatically in 1990 when we get into the project implementation phase with the bulk of the new people going to the energy technology centers.

Senator BYRD. How many would go to Morgantown?

Mr. WAMPLER. We are looking right now at a projection of 36 in 1990 probably would be somewhere close to the number. That is the planning number we are using right now.

Senator BYRD. I didn't understand your answer. I didn't hear you clearly.

Mr. WAMPLER. Thirty-six.

Senator BYRD. Thirty-six at Morgantown?

Mr. WAMPLER. Yes, sir.

Senator BYRD. And what was the date?

Mr. WAMPLER. That will be in the 1990 process, 1990 budget.

Senator BYRD. Thirty-six, whereas there are now how many?

Mr. WAMPLER. Sixteen.

Senator BYRD. How much of the $4 million will be spent in Morgantown this year?

Mr. WAMPLER. Just an estimate, probably $1.1 million of it this year. We can give you a more definitive answer, Mr. Chairman, for the record.

Senator BYRD. All right, if you will.

[The information follows:]

### FISCAL YEAR 1988 CLEAN COAL TECHNOLOGY PERSONNEL RELATED FUNDS TO THE MORGANTOWN ENERGY TECHNOLOGY CENTER

The fossil energy fiscal year 1988 amended budget request for personnel related funds for clean coal technology was $3.980 million. This request was based on a staffing request of 58 full-time equivalent positions [FTE's]. In accordance with fossil energy's distribution of the 58 FTE's, METC was allocated 16 and they received approximately $1.098 million of the $3.980 million to cover personnel related costs.

### MORGANTOWN CENTER'S ROLE IN CLEAN COAL PROGRAM

Senator BYRD. Will the Morgantown Energy Technology Center play a major role in all aspects of the clean coal program?

Mr. WAMPLER. It certainly will, Mr. Chairman. It has to this point. It has negotiated some very, very complicated projects and it will play certainly a major role in the implementation phase of the projects as we move forward with the program.

Morgantown also has members on the source evaluation board, who are the evaluation teams that are set up to select projects for the second round. So they have also involvement in headquarters, as well as the involvement they have in the field in program implementation.

Senator BYRD. Would you elaborate in your answer for the record?

Mr. WAMPLER. Certainly, Mr. Chairman.

[The information follows:]

## THE MORGANTOWN ENERGY TECHNOLOGY CENTER'S ROLE IN THE CLEAN COAL PROGRAM

The energy technology centers, located at Morgantown, WV [METC], and at Pittsburgh, PA [PETC], are responsible for the day-to-day management of the CCT projects assigned to each center. Assignment of projects is based upon designation of lead mission assignments for specific areas of technology. The clean coal technologies currently in the program for which METC has lead responsibility includes fluidized bed combustion, surface coal gasification, and underground coal gasification.

Following the selection of projects for the CCT Program in July 1986, METC was given the lead responsibility for completing negotiations leading to cooperative agreements for a number of projects. METC has entered into cooperative agreements with these industrial participants: Ohio Power Co. (TIDD PFBC demonstration project); Energy International, Inc. (underground coal gasification); and the M.W. Kellogg Co. (Appalachian IGCC demonstration project).

METC is currently in negotiations with three additional CCT proposers as a result of Department of Energy selections in October 1987: Colorado-Ute Electric Association, Inc. (Nucla CFB demonstration project); Minnesota Department of Natural Resources (Corex ironmaking demonstration project); and Consolidation Coal Co./Foster Wheeler Power Systems Inc. (clean energy IGCC demonstration project).

Subsequent to successfully negotiating cooperative agreements with each of these industrial participants, METC serves as the point of contact and is responsible for all matters in the day-to-day management of the projects. The center ensures that all DOE goals and objectives for the project are achieved and that the results of the project contribute as expected to the objectives of the CCT Program.

## MILITARY-RELATED RESEARCH PROGRAMS

Senator BYRD. Let me now turn to Senator Burdick to see if he has any questions he would like to ask, and then I will come back.

Senator BURDICK. Mr. Secretary, this year's energy budget continues the Reagan administration's emphasis on military-related research programs in nuclear energy, which appears to be at the expense of fossil fuels, renewable energy, and conservation.

The exception is the large increase for the Clean Coal Technology Program.

As you know, the Environment and Public Works Committee has reported S. 1894, the clean air amendments. S. 1894 authorizes the Clean Coal Technology Program, which reflects the ongoing recommendations and the required reductions in the bill are phased to take advantage of the innovative clean coal technology.

The acid rain title of the bill requires a national emission reduction program. Under the bill reported, States like North Dakota, with relatively small utility emissions, which have expended hundreds of millions of dollars adding scrubbers and other control technology, will be required to make additional sulfur dioxide emissions reduction.

If we establish a national program to reduce acid rain, do you believe that all coal types, such as lignite, in all regions of the country, will be eligible for clean coal technology funding?

Mr. WAMPLER. To answer that, Senator Burdick, we have always said that the Clean Coal Technology Program should be eligible for all parts of the country and all fuel types, and we continue that policy. We have tried to make that policy very, very clear; that as long as a technology in its commercial form, not in its demonstration form, but in its commercial form meets the criteria of the Lewis Davis report, that we would encourage these technologies and demonstration plants to be distributed throughout the country. So that has been our policy.

### PARTICIPATION IN CLEAN COAL PROGRAM

Senator BURDICK. As I am sure you are aware, western fuels, specifically subbituminous coal and lignite, represent more than one-half the recoverable coal resources in the country. Yet I am told that less than 10 percent of DOE's fossil energy budget is directed toward western fuels.

To illustrate my point, I would refer to the 11 projects now being awarded in the first round of the clean coal program solicitation. I am told that of the 11 awards, only 1 or 2 will concern low ranked coal. That distribution hardly seems to coincide with where our resources are located.

Can you explain why the western fuels have a low degree of participation in these programs?

Mr. WAMPLER. I think it is important to note, to begin with, that most of the clean coal technologies are not fuel-sensitive. That is one of the things that makes them so very attractive. Many are tested on high- and low-ranked coals.

I would expect, and we have encouraged a larger number of proposals in the second round of clean coal technology to come from those States that produce low-ranked coals. And I have every reason to believe that we will get more proposals from those States. It was simply a matter of the amount of proposals that we got in the beginning, the quality of the proposals and so forth.

But we have made an extra effort to impress upon people during the second round, our desire to see projects geographically dispersed. So we are looking forward in the second round to more proposals for low-ranked coals.

Senator BURDICK. Then the 11 awards that are referred to, that is just the first round, is it?

Mr. WAMPLER. Yes; that is the first round.

Senator BURDICK. But in that first round, there are only one or two concerning low-ranked coal; is that correct?

Mr. WAMPLER. Yes, sir; two.

But several of the others are eligible to have low-ranked coals burned in them as test coals. But there are two projects that are specifically in those areas.

Senator BURDICK. Will there be an effort in the second round to see if you can't bring in more low-ranked coal?

## LOW RANK COAL

Mr. **Wampler**. There has already been an effort to impress upon people that we would like to see these projects geographically dispersed, but which would in turn certainly increase the possibility of low-ranked coal project.

Senator **Burdick**. How many awards will be issued in the second round?

Mr. **Wampler**. That is hard to estimate because we haven't received the proposals yet. We probably are looking at a minimum of 15 to 20 projects in the second round.

Senator **Burdick**. How much of the existing fossil energy research budget is directed at low-ranked coals like lignite?

Mr. **Wampler**. For fiscal year 1989, about $5.2 million.

Senator **Burdick**. And what percentage of that of the total?

Mr. **Wampler**. My mathematicians tell me that is about 5 percent, Senator.

Senator **Burdick**. If there is any variance, would you make it a part of the record?

Mr. **Wampler**. Certainly, Senator.

[The information follows:]

### PERCENTAGE OF TOTAL FOSSIL ENERGY R&D WHICH IS LOW-RANK COAL

The Office of Fossil Energy coal research activities are generally applicable to all ranks of coals and, therefore, applicable to low-rank coal. A small percentage, approximately 5 percent, of the research in fiscal year 1989 is earmarked for those problems that are unique to low-rank coals and not necessarily applicable to the other ranks of coal.

## DEPARTMENT OF ENERGY COAL RESEARCH

Senator **Burdick**. Could you provide the committee with a breakdown of DOE coal research by coal type and where research is taking place?

Mr. **Wampler**. Certainly.

[The information follows:]

## LIST OF COAL RESEARCH TECHNOLOGIES AND THEIR APPLICATIONS

### Indirect Liquefaction

Indirect Liquefaction liquid fuels (diesel, gasoline, methanol, higher alcohols) are produced by the catalytic conversion of synthesis gas (hydrogen and carbon monoxide).

All coals which are efficiently gasified into substantial quantities of synthesis gas are usable for Indirect Liquefaction Synthesis. This includes bituminous, subbituminous and lignite coals.

### Heat Engines

In the gas turbine and diesel engine areas, the main efforts of all contractors are to research the combustion of coal water mixtures. These fuels are obtained from commercial suppliers such as Amax and Otisca. The coal utilized is usually a bituminous coal.

In support of this program, we have funded the University of North Dakota Energy and Mineral Research Center (UNDEMRC) to research the combustion of low ranked coals such as subbituminous and lignite.

The information developed through all the combustor activities is applicable to high ranked and low ranked coals.

The major contractors and their applications by type of coal are listed below.

| Contractor | Technology | Applicable Coal Fuel |
|---|---|---|
| | GAS TURBINES | |
| General Motors | Combustion | Bituminous |
| General Electric | Combustion | Bituminous |
| Westinghouse | Combustion | Bituminous |
| Solar Turbines | Combustion | Bituminous |
| | DIESEL ENGINES | |
| General Electric | Combustion | Bituminous |
| Arthur D. Little | Combustion | Bituminous |
| | MISCELLANEOUS | |
| UNDEMRC | Combustion | Subbituminous<br>Lignite |

### Surface Coal Gasification

The gasification of coal can be carried out on all ranks of coal from lignite through subbituminous, bituminous and anthracite. The product of the gasification of these coals can be a low-Btu fuel gas, a medium-Btu synthesis gas, or a high-Btu synthetic natural gas. For the FY 1989 Budget Request, research will be carried out at the following locations using the type of coal specified in the table.

| Location | Coal Type Used In Project |
|---|---|
| Montebello, CA | Bituminous |
| Morgantown, WV | Bituminous, Subbituminous, Lignite |
| Livingston, NJ | Bituminous |
| East Hartford, CT | Bituminous, Subbituminous, Lignite |

## Direct Liquefaction

Liquid Fuels from direct coal liquefaction (diesel, jet fuels, gasoline) are produced by thermo-catalytic conversion and upgrading.

Each coal liquefaction technology is applicable to all types of coals including bituminous, subbituminous and lignites.

UNDEMRC is the research center where lignites (in particular, North Dakota lignites) have been mainly used in direct coal liquefaction.

The industrial direct liquefaction projects and locations in the FY 1989 request are:

| Contractor | Research Area | Type of Coal Used | Location |
|---|---|---|---|
| Southern Company Services, Inc. | Two-Stage Liquefaction | Bituminous<br>Subbituminous<br>Lignite | Wilsonville, AL |
| HRI | Low-Severity Two-Stage Liquefaction | Bituminous<br>Subbituminous<br>Lignites | Lawrenceville, NJ |
| HRI | Co-Processing | Bituminous<br>Subbituminous<br>Lignite | Lawrenceville, NJ |
| UOP, Inc. | Simple-Stage Co-Processing | Bituminous | Des Plaines, IL |

## Gas Stream Cleanup

The Gas Stream Cleanup Program is scoped to provide research on physical and chemical methods of contaminant control ($SO_x$, $NO_x$, particulates, trace metal, hydrocarbons, and alkalies) for contaminated high temperature high pressure gas streams produced from all types of coal (bituminous, subbituminous, lignite).

The FY 1989 program covers cleanup of high temperature gases produced from coal gasification, direct coal combustion and pressurized fluidized bed combustion.

Although all types of coal are considered in the program, some coals introduce specific problem areas, such as the high alkali contents of low rank coals. Consequently, special efforts will be directed toward investigation of such problems. Research projects are being conducted at many national labs, universities, energy technology centers and industrial sites.

## Atmospheric Fluidized Bed Combustion

The AFB program is directed at developing technologies for the light industrial, commercial/institutional and large industrial sectors. The coal to be utilized in these combustors is usually bituminous coal; however, they can burn lower rank coals also.

| Contractor | Location | Coal |
|---|---|---|
| Riley Stoker | Worchester, MA | Bituminous |
| York Shipley | York, PA | Bituminous |
| MCTI | Columbia, MD | Bituminous |
| EER | Irvine, CA | Bituminous |
| Hydrocarbon Research, Inc. | Lawrenceville, NJ | Bituminous |

DOE has completed its research into large industrial applications AFB's. Three demonstrations that are still active include:

| | | |
|---|---|---|
| Wilkes-Barre Steam Heat Authority | Wilkes-Barre, PA | Anthracite Culm |
| Georgetown University | Washington, D.C. | Bituminous |
| East Stroudsburg | East Stroudsburg, PA | Anthracite Culm |
| TVA (160 MW Demo AFB) | Paducah, KY | Lignite<br>Subbituminous<br>Bituminous |

Research on low rank coals -- lignites and subbituminous -- is being conducted at the University of North Dakota Energy and Mineral Research Center.

## Pressurized Fluidized Bed Combustion

The PFB is directed at technologies that can utilize all ranks of coal, but the emphasis is on bituminous coals.

| Contractor | Location/Technology | Coals |
|---|---|---|
| Foster Wheeler | Livingston, NJ<br>Advanced PFB | Bituminous<br>Subbituminous<br>Lignite |
| Consortium | Metal Wastage | Bituminous |
| British Coal | Grimethorpe, England<br>PFB Demo | Bituminous |

Research on low rank coals is being conducted at the University of North Dakota Energy and Mineral Research Center.

## Advanced Combustion Technology

The advanced combustion R&D projects rely on fuels supplied by the Alternative Fuels Program. All funds used in the advanced combustion projects are prepared from bituminous coals.

The advanced combustion projects included in the FY 1989 program and their locations are as follows:

| Contractor | Application | Location |
|---|---|---|
| Energy and Environmental Research Corp. | Residential | Irvine, CA |
| Manufacturing and Technology Conversion Intl. | Residential | Santa Fe Springs, CA |

| Contractor | Application | Location |
|---|---|---|
| Tecogen, Inc. | Residential | Waltham, MA |
| Avco Research Laboratory | Residential | Everett, MA |
| The Catholic University of America | Commercial | Washington, D.C. |
| U.S. Navy Civil Engineering Laboratory | Commercial | Port Hueneme, CA |
| Manufacturing and Technology Conversion Intl. | Industrial | Santa Fe Springs, CA |
| University of Tennessee Space Institute | Industrial | Tullahoma, TN |
| Vortec Corporation | Industrial (Process Heat) | Collegeville, PA |
| Otisca Industries, Inc. | Industrial | Syracuse, NY |

### Alternative Fuels

Alternative Fuels Program activities encompass research and development directed at (1) coal-based fuel and fuel combustion characterization and evaluation, including investigations of alternate fuel formulations and the influence of such formulations on fuel handling; distribution storage, combustion and pollutant emissions, and (2) component/systems development and testing, including advanced technology required to handle, transport, and store alternative fuels as well as retrofitting such fuels into existing combustion systems with minimum modification of hardware and within economically and environmentally acceptable limits.

Most of the work, with the exception of the University of North Dakota Energy and Mineral Research Center's (UNDEMRC) work with low-rank coal slurry fuels, is performed with bituminous coals either in slurry form or as dry ultrafine.

The major projects, technology description and coal types are summarized as follows:

| Performer/Location | Technology | Coal Type |
|---|---|---|
| UNDEMRC<br>Grand Forks, ND | The investigation of advanced processes for slurry production with low-rank coal-water slurry fuels. | Lignite<br>Subbituminous |
| PETC<br>Pittsburgh, PA | Fuel and fuel combustion characterization, emissions, transport, storage, etc. | Bituminous |
| Atlantic Research Corp.<br>Gainesville, VA | Advanced atomization of CWS fuels. | Bituminous |

| Performer/Location | Technology | Coal Type |
|---|---|---|
| Cogentrics<br>Charlotte, NC | Combustion characterization of micronized coal. | Bituminous |
| Combustion Engineering, Inc.<br>Windsor, CT | CWSF combustion and fuel characterization. | Bituminous |
| Energy International, Inc.<br>Pittsburgh, PA | Characterization and supply of coal-based fuels in support of the Advanced Combustor Program. | Bituminous |

Flue Gas Cleanup

Flue Gas Cleanup systems being developed can operate with most coals. Below are the projects and types of coal being utilized.

| Contractor/Location | Technology | Coal Type |
|---|---|---|
| SRI<br>Birmingham, AL | Filter enhancement | Bituminous<br>Subbituminous<br>Lignite |
| University of Arizona<br>Tucson, AZ | $NO_x$ abatement | Bituminous<br>Subbituminous<br>Lignite |
| FERCO<br>Irvine, CA | Development of advanced dry $NO_x$/ $SO_x$ | Bituminous<br>Subbituminous<br>Lignite |
| EER<br>Irvine, CA | Fine particulate control | Bituminous<br>Subbituminous<br>Lignite |
| MT&R<br>Menlo Park, CA | Development membrane for $NO_x/SO_x$ treatment | Bituminous<br>Subbituminous |
| Georgia Tech<br>Atlanta, GA | Combined $NO_x/SO_x$ removal and concentration | Bituminous<br>Subbituminous |
| ANL<br>Argonne, IL | $NO_x/SO_x$ spray dryer | Bituminous<br>Subbituminous |
| UOP<br>Kincaid, IL | Fluid bed copper oxide process | Bituminous<br>Subbituminous |
| Ebara<br>Indianapolis, IN | Combined $NO_x/SO_x$ particulate control | Bituminous<br>Subbituminous |
| LSU<br>Baton Rouge, LA | Formation and destruction of $NO_2$ | Bituminous<br>Subbituminous<br>Lignite |
| ADL<br>Cambridge, MA | Particulate control technology development | Bituminous<br>Subbituminous<br>Lignite |

| Contractor/Location | Technology | Coal Type |
|---|---|---|
| Raycon<br>Brookline, MA | Tung scrubber process development | Bituminous<br>Subbituminous |
| Bechtel<br>Ottowa County, MI | Confined zone dispersion | Bituminous<br>Subbituminous |
| UNDEMRC<br>Grand Forks, ND | Flue gas conditioning | Bituminous<br>Subbituminous<br>Lignite |
| UNDEMRC<br>Grand Forks, ND | Cooperative Agreement | Bituminous<br>Subbituminous<br>Lignite |
| University of NH<br>Durham, NH | Electrocatalytic decomposition of $NO_2$ | Bituminous<br>Subbituminous<br>Lignite |
| Stevens Institute<br>Hoboken, NJ | Liquid membrane $NO_x$/ $SO_x$ control | Bituminous<br>Subbituminous |
| EPRI<br>Sommerset, NY | Cooperative Agreement for Hi-Sulfur Test Center operations | Bituminous<br>Subbituminous |
| Helipump<br>Cleveland, OH | Simultaneous $NO_x$/$SO_x$ particulate control | Bituminous<br>Subbituminous |
| Dravo<br>Toronto, OH | Low temperature hydrate addition | Bituminous<br>Subbituminous |
| General Electric<br>Beverley, OH | In-duct spray drying | Bituminous<br>Subbituminous |
| ETS<br>Roanoke, VA | Laminar flow ESP | Bituminous<br>Subbituminous<br>Lignite |

## Coal Preparation

Advanced Coal Research: Advanced Coal Research, at a laboratory scale, covering physical, chemical, microbial/biological, electrostatic and classification is being done at the Pittsburgh Energy Technology Center, Pittsburgh, PA. Research is primarily for bituminous coals.

Low Rank Coal Research: Technologies to determine the characteristics, reduce the organic sulfur content and improve the flow characteristic of low rank coals used in preparation of these coals in coal water slurries is being performed at the University of North Dakota Energy and Mineral Research Center at Grand Forks, ND. Additional knowledge on the preparation and handling of low rank coals should emerge from our contract agreement with EPRI/Alberta Research Council, although our primary interests in the latter project were for bituminous/subbituminous coals. Locations of work performance would depend on the participant performing the research and could range anywhere in the United States, Canada, and possibly international.

National Laboratory Activities: Coal preparation activities, primarily for bituminous coals, are being researched at our designated national laboratories. Technologies such as chemical pretreatment of coal in a stirred ball mill; development of instrumental techniques for coal surface analysis; sonic enhancement of chemical and physical coal cleaning; regeneration of caustics used in coal beneficiation; microcharacterization of coal components; and mechanisms for the selective agglomeration of coal are being conducted at Ames National Laboratory, Ames, Iowa.

High Sulfur Coal Research: Research directed to reduce sulfur emissions from high sulfur bituminous coals include activities in coal beneficiation technologies; coal conversion; coal characterization and science; and coal utilization, all directed towards establishing a technology base that will facilitate the use of high sulfur coals in an economical and environmentally acceptable manner. Work is performed under terms of a cooperative agreement between DOE and Southern Illinois University, Carbondale, Illinois.

Procurement Projects: Procurement activities are separated in three general categories: namely, physical coal cleaning, chemical and/or microbial coal cleaning and ancillary operations. All procured coal beneficiation activities are applicable to bituminous coals although several, primarily in the chemical/microbial and ancillary operations, could also be applicable to subbituminous coals. A breakdown of research activities by category include:

| Physical Coal Beneficiation | Contractor | Location |
|---|---|---|
| Selective Agglomeration of a 1 Ton/Hour, EPRI CGCF, Homer City, PA | Bechtel | San Francisco, CA |
| Heavy Liquid Cyclone Test at a 1 Ton/Hour EPRI-CGCF, Homer City, PA | Process Technology | Calumet, MI |
| Chemical/Microbiological Coal Beneficiation | | |
| Molten Caustic Leaching | TRW | Redondo Beach, CA |
| Microbial Mediated Removal of Organic Sulfur from Coal | Atlantic Research | Alexandria, VA |

## UNIVERSITY OF NORTH DAKOTA RESEARCH FACILITY

Senator BURDICK. As you know, the Department of Energy had a research facility at the University of North Dakota until 1983, when the facility was acquired by the university. The acquisition included a cooperative agreement which phased out Federal funding over a 6-year period, the funding is scheduled to end in fiscal year 1992.

The agreement was based on the understanding that private sector funding and competitive research grants should be sought to make up for the reduced Federal revenue.

Unfortunately, no one could predict at that time that the energy industry would find itself in today's financial state. Private funds for essential research have fallen dramatically, and even though the university has aggressively sought and received private and other Government contracts, it has not been enough to compensate for the phased reduction in Federal funds.

As you well know, the situation has been worsened by the Department of Energy's awarding less money in its competitive research programs. The Energy and Mineral Research Center at the University of North Dakota is the leader in research on low-ranked coal, not only in this country but, in my opinion, in the world.

If the phased reduction in Federal funding continues, the implications are significant. We will lose experienced scientists to the essential research that is necessary in long-term energy development, such as conversion of low-ranked coal by liquefaction and gasification, matching fuel combustion systems, and the technology for flue gas.

I want to take this opportunity to let you know that we plan to take another look at the funding levels of the cooperative agreement, with an eye toward increasing the current level over an extended period of time. Stable Federal funding for this type of research is essential.

It would be my intent to address the issue in the fiscal year 1989 Department of Energy appropriation.

Would the Department oppose this effort?

Mr. WAMPLER. Senator, let me say a couple of things.

One is that we share your concern about that research. When we initially developed the declining funding balance, it is true that nobody anticipated the energy situation being exactly like it is today. Also as you know, we have expressed concern about not only that facility, but also WRI.

So we are taking a fresh look at those facilities. We don't anticipate any problems in 1989 with the level of work being done at both those institutions. We think that level will move forward. We simply don't see a problem. We think there is sufficient work out there to keep them at somewhat of a level basis for fiscal year 1989.

Senator BURDICK. Are you telling me that the sliding reduction in Federal support will stop?

Mr. WAMPLER. I don't think that the reduction in Federal support for the year 1989 is a problem. I think that we have enough work in the preliminary planning phases at least so that that level would remain reasonably constant for fiscal year 1989.

Senator BURDICK. We may have to consult each other in 1990 and 1991.

Mr. WAMPLER. I would certainly be glad to do that, Senator.

Senator BURDICK. Mr. Chairman, I have a few more questions that I will submit for the record.

Senator BYRD. All right, Senator Burdick.

You submit the questions for the record, and the Secretary and his Department will respond for the record.

### FOSSIL ENERGY RESEARCH AND DEVELOPMENT BUDGET

You have already commented on the 1989 budget request for the "Fossil energy research and development" account, which is $166,992,000, some $160 million below the new budget authority appropriated for the current year.

When prior-year adjustments are included in the comparison, the fiscal year 1989 request is only 47 percent of the fiscal year 1988 fossil research program level. As bad as this request is—and it is bad—it is not as low as some that I have seen from this administration. Perhaps it is the best of a bad lot.

I recognize that you have to support the President's request, once it is finalized. But I believe that you would like to do more to realize the potential of coal and other fossil fuels than this budget will permit.

What was the total fiscal year 1988 funding that you proposed to the Secretary for Fossil Energy Research and Development?

Mr. WAMPLER. Mr. Chairman, I do support the President's request, but the original internal request was $299.5 million.

Senator BYRD. Now, what do you mean by internal request?

Mr. WAMPLER. The development of the fossil R&D budget is a pretty lengthy process, I am told not unlike the congressional budget process.

Senator BYRD. But where was that particular figure?

Mr. WAMPLER. That figure is an initial program proposal, without any fiscal constraints attached to it, and it is on a document that we call internally the Hollofield tables that we have made use of in the Department for many, many years.

Senator BYRD. That was the figure you supported?

Mr. WAMPLER. Yes, sir; it is.

Senator BYRD. I have a figure of $327 million.

Mr. WAMPLER. No, sir; I am not familiar with that figure.

Senator BYRD. All right. We will have our staff work with you in that regard to see if we can reconcile those figures.

So what was the figure then, please?

Mr. WAMPLER. $299.5 million.

Senator BYRD. So the figure for the request then was cut roughly close to one-half.

What were some of the principal additions that you would have made to this budget request? Where did this reduction take place in the main?

Mr. **WAMPLER**. As I had mentioned earlier, a good deal of the reduction took place in programs that we had closed out programmatically.

Senator **BYRD**. I understand that.

But if this internal request was $295 million—is that what you said? $295 million?

Mr. **WAMPLER**. $299.5 million.

Senator **BYRD**. $299.5 million. Wouldn't that have been taking into consideration those programs that have been closed out?

Mr. **WAMPLER**. Yes, it was, Mr. Chairman.

Senator **BYRD**. So that doesn't seem to be a good explanation for the reduction.

Where did the actual reduction take place? Was that in OMB or where?

Mr. **WAMPLER**. Well, if you select some examples, a lot of these cuts were almost across the board, if you select some examples, of course, advanced research was an area. The control technology under coal was an area.

We would be glad to submit this list for the record. It is commonly submitted by the Department. The Secretary has already submitted the tables, the ranking, in another hearing. So we would be glad to give you that in detail, Mr. Chairman.

[The information follows:]

## REDUCTIONS BETWEEN FOSSIL ENERGY FISCAL YEAR 1989 INTERNAL REVIEW AND CONGRESSIONAL BUDGET REQUESTS

The following table provides the differences between the fossil energy research and development fiscal year 1989 internal review budget and the fiscal year 1989 congressional budget request. A list of the areas of research that made up these reductions is also provided.

## FY 1989 FOSSIL ENERGY R&D APPROPRIATION
($ in thousands)

| | -------- FY 1989 -------- | | |
|---|---|---|---|
| | IRB Program Planning | Cons. Budget Request | Cons. vs. IRB (+/-) |
| COAL - OPERATING EXPENSES | | | |
| Control Tech. & Coal Prep. | 43787 | 31487 | -12300 |
| Adv. Research & Tech. Devel. | 33512 | 21410 | -12102 |
| Coal Liquefaction | 13687 | 10298 | -3389 |
| Combustion Systems | 22166 | 17420 | -4746 |
| Fuel Cells | 9430 | 6634 | -2796 |
| Heat Engines | 14269 | 8998 | -5271 |
| Underground Coal Gasification | 1425 | 271 | -1154 |
| Magnetohydrodynamics | 32000 | 0 | -32000 |
| Surface Coal Gasification | 12534 | 5027 | -7507 |
| | ------ | ------ | ------ |
| TOTAL COAL | 182810 | 101545 | -81265 |
| GAS - OPERATING EXPENSES | 2217 | 1734 | -483 |
| PETROLEUM - OPERATING EXPENSES | | | |
| Advanced Process Technology | 4500 | 2168 | -2332 |
| Enhanced Oil Recovery | 18500 | 16983 | -1517 |
| Oil Shale | 7400 | 1035 | -6365 |
| | ----- | ----- | ------ |
| TOTAL PETROLEUM | 30400 | 20186 | -10214 |
| PROG. DIRECTION & MNGT. SUPPORT | 70025 | 35027 | -34998 |
| PLANT & CAPITAL EQUIPMENT | | | |
| Capital Equipment | 1500 | 0 | -1500 |
| Construction | 2500 | 500 | -2000 |
| | ---- | ---- | ----- |
| TOTAL PLT. & CAPITAL EQUIP. | 4000 | 500 | -3500 |
| COOPERATIVE R&D VENTURES | 10000 | 9000 | -1000 |
| TOTAL FOSSIL ENERGY R&D | | | |
| Operating Expenses | 295452 | 167492 | -127960 |
| Capital Equipment | 1500 | 0 | -1500 |
| Construction | 2500 | 500 | -2000 |
| | ------ | ------ | ------- |
| Subtotal Fossil Energy R&D | 299452 | 167992 | -131460 |
| Prior Year Offsets | --- | -1000 | -1000 |
| Appropriation Transfers | -517 | --- | 517 |
| | ------ | ------ | ------- |
| TOTAL FE R&D NEW BA | 298935 | 166992 | -131943 |
| | ====== | ====== | ======= |

| | FY 1989 | | |
|---|---|---|---|
| | IRB Program Planning | Cons. Budget Request | Cons. vs. IRB (+/-) |
| **CONTROL TECH. & COAL PREPARATION** | | | |
| Advanced Research | 1/ | 1774 | 1774 |
| Coal Preparation | 16173 | 9948 | -6225 |
| Flue Gas Cleanup | 18760 | 12961 | -5799 |
| Gas Stream Cleanup | 7026 | 5405 | -1621 |
| Waste Management | 1828 | 1399 | -429 |
| Total Ctrl Tech & Coal Prep | 43787 | 31487 | -12300 |
| **ADV. RESEARCH & TECH. DEVELOPMENT** | | | |
| Coal Utilization Science 2/ | 10085 | 3054 | -7031 |
| Materials & Components | | | |
| Components | 1474 | 1474 | 0 |
| Materials | 5067 | 5067 | 0 |
| | 6541 | 6541 | 0 |
| Technology Crosscut | | | |
| Environmental Activities | 2802 | 2602 | -200 |
| Technical & Econ. Analyses | 2933 | 2633 | -300 |
| Technology Base Synthesis | 650 | 0 | -650 |
| International Prog. Support | 1037 | 737 | -300 |
| Instrumentation &Diagnostics | 2040 | 1290 | -750 |
| Bioprocessing of Coal | 1170 | 217 | -953 |
| | 10632 | 7479 | -3153 |
| Univ./National Lab Coal Research | | | |
| University Coal Research | 5500 | 3903 | -1597 |
| Univ./Nat'l Lab Coop. Prog. | 754 | 433 | -321 |
| | 6254 | 4336 | -1918 |
| Total Adv. Res. & Tech. Dev. | 33512 | 21410 | -12102 |
| **COAL LIQUEFACTION** | | | |
| Advanced Research | 4030 | 3241 | -789 |
| Direct Liquefaction | 5091 | 3241 | -1850 |
| Indirect Liquefaction | 3492 | 2742 | -750 |
| Support Studies/Engrg. Evals. | 1074 | 1074 | 0 |
| Total Coal Liquefaction | 13687 | 10298 | -3389 |
| **COMBUSTION SYSTEMS** | | | |
| Advanced Research | 1/ | 2092 | 2092 |
| AFB Combustion | 2705 | 1735 | -970 |
| PFB Combustion | 8051 | 7117 | -934 |
| Adv. Combustion Technology | 4929 | 2682 | -2247 |
| Alternative Fuels Utilization | 4481 | 3794 | -687 |
| EPA LIMB Demonstration | 2000 | 0 | -2000 |
| Total Combustion Systems | 22166 | 17420 | -4746 |

1/ In AR&TD/Direct Util. for IRB

2/ Named Direct Utilization for IRB

| | FY 1989 | | |
|---|---|---|---|
| | IRB Program Planning | Cons. Budget Request | Cons. vs. IRB (+/-) |
| **FUEL CELLS** | | | |
| Advanced Research | 1/ | 997 | 997 |
| Phosphoric Acid Systems | 0 | 0 | 0 |
| Molten Carbonate Systems | 5000 | 3469 | -1531 |
| Advanced Concepts | 4430 | 2168 | -2262 |
| Total Fuel Cells | 9430 | 6634 | -2796 |
| **HEAT ENGINES** | | | |
| Gas Turbines | 9212 | 6830 | -2382 |
| Diesel Engines | 5057 | 2168 | -2889 |
| Total Heat Engines | 14269 | 8998 | -5271 |
| **UNDERGROUND COAL GASIFICATION** | | | |
| Environmental & Adv. Research | 1425 | 271 | -1154 |
| Gasification Tech. Development | 0 | 0 | 0 |
| Total Underground Coal Gasif | 1425 | 271 | -1154 |
| **MAGNETOHYDRODYNAMICS** | | | |
| POC Topping Cycle | 21367 | 0 | -21367 |
| POC Bottoming Cycle | 7798 | 0 | -7798 |
| POC Seed Regeneration | 830 | 0 | -830 |
| Sys. Studies/Spt. Res./Conceptual Designs | 2005 | 0 | -2005 |
| Total Magnetohydrodynamics | 32000 | 0 | -32000 |
| **SURFACE COAL GASIFICATION** | | | |
| Advanced Research | 1514 | 694 | -820 |
| Systems for Power Production | 4383 | 876 | -3507 |
| Sys. for Indus. Fuel Gas Prod. | 1298 | 848 | -450 |
| Systems for Syn. Gas Productn | 2008 | 1258 | -750 |
| Sys. for Coproducts Production | 2814 | 834 | -1980 |
| Great Plains Project | 517 | 517 | 0 |
| Total Surface Coal Gasif. | 12534 | 5027 | -7507 |
| **UNCONVENTIONAL GAS RECOVERY** | | | |
| Eastern Gas Shales | 400 | 325 | -75 |
| Western Tight Gas Sands | 625 | 325 | -300 |
| Environmental & Adv. Research | 1192 | 1084 | -108 |
| Total Unconventional Gas Rec | 2217 | 1734 | -483 |

1/ In AR&TD/Direct Util. for IRB

| | FY 1989 | | |
|---|---|---|---|
| | IRB Program Planning | Cons. Budget Request | Cons. vs. IRB (+/-) |
| **ADVANCED PROCESS TECHNOLOGY** | | | |
| Advanced Exploratory Research | 4048 | 1716 | -2332 |
| Arctic & Offshore Research | 452 | 452 | 0 |
| Total Advanced Process Tech. | 4500 | 2168 | -2332 |
| **ENHANCED OIL RECOVERY** | | | |
| Heavy Oil | 4030 | 3945 | -85 |
| Light Oil | 14470 | 13038 | -1432 |
| Tar Sands | 0 | 0 | 0 |
| Total Enhanced Oil Recovery | 18500 | 16983 | -1517 |
| **OIL SHALE** | | | |
| Oil Shale Technology Base | 5310 | 710 | -4600 |
| Environmental Mitigation | 2090 | 325 | -1765 |
| Total Oil Shale | 7400 | 1035 | -6365 |
| **PROG. DIRECTION & MANAGEMENT SPT.** | | | |
| Hdqtrs. Program Direction | | | |
| Salaries & Benefits | 10625 | 8396 | -2229 |
| Travel | 676 | 446 | -230 |
| Contract Services | 7156 | 865 | -6291 |
| | 18457 | 9707 | -8750 |
| ETC Program Direction | | | |
| Salaries & Benefits | 20114 | 13469 | -6645 |
| Travel | 1146 | 646 | -500 |
| Contract Services | 30059 | 10956 | -19103 |
| | 51319 | 25071 | -26248 |
| Alaska Pipeline Inspector | | | |
| Salaries & Benefits | 215 | 219 | 4 |
| Travel | 10 | 7 | -3 |
| Other | 24 | 23 | -1 |
| | 249 | 249 | 0 |
| Total Prog. Dir. & Mngt. Spt | 70025 | 35027 | -34998 |

| | FY 1989 | | |
|---|---|---|---|
| | IRB Program Planning | Cons. Budget Request | Cons. vs. IRB (+/-) |
| **PLANT AND CAPITAL EQUIPMENT** | | | |
| Capital Equipment | 1500 | 0 | -1500 |
| Construction | | | |
| GPP at ETCs | 2500 | 0 | -2500 |
| PETC Chemical Engrs. Lab | 0 | 500 | 500 |
| Total Construction | 2500 | 500 | -2000 |
| Total Plant & Capital Equip. | 4000 | 500 | -3500 |
| **COOPERATIVE R&D VENTURES** | 10000 | 9000 | -1000 |

## FOSSIL ENERGY RESEARCH AND DEVELOPMENT REDUCTIONS

Senator BYRD. Was most of the reduction, then, if not all, made at the Secretarial level?

Mr. WAMPLER. The process is one that, if you want to call it the Secretary level, I suppose that is a step during the process that the cuts were made, but those cuts in all fairness were agreed to by people inside the Department, including me.

Senator BYRD. Well, they were agreed to. Possibly I would agree to them, I suppose, if I couldn't do anything else.

But I am asking whether the reduction occurred at the Secretary's level, Mr. Herrington's level?

Mr. WAMPLER. It appears, based on the information I have, and I will clarify it if it was different, there were a couple of cuts, one at that level and also one at the OMB level.

Senator BYRD. Was it something like $179 million at the Secretary level and $166 million at OMB?

Mr. WAMPLER. That is about right. I think it was $176.6 million and $167.9 million, the precise figures.

Senator BYRD. What were some of the principal additions that you would have made to this budget request?

Mr. WAMPLER. There are ranking sheets, Mr. Chairman, I would be glad to provide for the record.

Senator BYRD. Very well. But let's have a few details here.

What about advanced research, coal gasification, coal-fired heat engines, coal combustion, coal liquefaction?

Mr. WAMPLER. In heat engines we would have added approximately $2.9 million for diesels, and $2.3 million for gas turbines. In advanced research we would have added $1.6 million for university coal research

Those are just some examples.

Senator BYRD. Can you give others?

Mr. WAMPLER. Yes; I can.

Senator BYRD. I am interested in getting them now as well as for the record.

Mr. WAMPLER. Others include: $1.5 million for molten carbonate fuel cells; advanced concepts, $2.2 million; underground coal gasification, $1.1 million; enhanced oil recovery, $1.4 million; advanced process technology, $2.3 million; surface coal gasification, $3.5 million; flue gas cleanup, $5.7 million, and coal preparation, $6.2 million.

Senator BYRD. All right, Mr. Secretary, if you will provide for the record a listing of these. And if you would list them in priority order, please.

[The information follows:]

## FOSSIL ENERGY RESEARCH AND DEVELOPMENT

The following is a priority list of Fossil Energy Research and Development activities which were in the FY 1989 Assistant Secretary's budget request but not included or reduced in the budget request to Congress.

| Priority | Program | Activity Description | Amount ($000) |
|---|---|---|---|
| 1 | Program Direction & Management Support | o ETC program direction<br>o Headquarters program direction | 34,998 (a) |
| 2 | Coal | Control Tech. & Coal Preparation<br>o Coal preparation | 6,225 |
| 3 | Coal | Control Tech. & Coal Preparation<br>o Flue gas cleanup | 5,799 |
| 4 | Coal | Control Tech. & Coal Preparation<br>o Gas stream cleanup | 1,621 |
| 5 | Coal | Surface Coal Gasification<br>o Systems for coproducts production | 1,980 |
| 6 | Coal | Combustion Systems<br>o Advanced combustion technology | 2,247 |
| 7 | Coal | Adv. Research & Tech. Development<br>o Environmental activities | 200 |
| 8 | Coal | Combustion Systems<br>o Alternative fuels utilization | 687 |
| 9 | Coal | Adv. Research & Tech. Development<br>o Direct utilization (b) | 2,168 |
| 10 | Coal | Combustion Systems<br>o PFB combustion | 934 |
| 11 | Coal | Combustion Systems<br>o AFB combustion | 970 |
| 12 | Petroleum | Enhanced Oil Recovery<br>o Light oil | 1,432 |
| 13 | Petroleum | Advanced Process Technology<br>o Advanced exploratory research | 2,332 |
| 14 | Coop. R&D Ventures | o Cooperative ventures | 1,000 |
| 15 | Coal | Surface Coal Gasification<br>o Systems for power production | 3,507 |
| 16 | Coal | Combustion Systems<br>o EPA LIMB demonstration | 2,000 |
| 17 | Coal | Adv. Research & Tech. Development<br>o Technical and economic analyses | 300 |
| 18 | Petroleum | Enhanced Oil Recovery<br>o Heavy Oil | 85 |
| 19 | Coal | Heat Engines<br>o Diesel engines | 2,889 |
| 20 | Coal | Heat Engines<br>o Gas turbines | 2,382 |

| Priority | Program | Activity Description | Amount ($000) |
|---|---|---|---|
| 21 | Coal | Surface Coal Gasification<br>o Advanced research | 820 |
| 22 | Coal | Control Tech. & Coal Preparation<br>o Waste management | 429 |
| 23 | Coal | Adv. Research & Tech. Development<br>o Bioprocessing of coal | 953 |
| 24 | Coal | Adv. Research & Tech. Development<br>o University coal research | 1,597 |
| 25 | Coal | Adv. Research & Tech. Development<br>o Instrumentation and diagnostics | 750 |
| 26 | Coal | Adv. Research & Tech. Development<br>o International program support | 300 |
| 27 | Coal | Adv. Research & Tech. Development<br>o Technology base synthesis | 650 |
| 28 | Coal | Adv. Research & Tech. Development<br>o University/national laboratory cooperative program | 321 |
| 29 | Coal | Coal Liquefaction<br>o Advanced research | 789 |
| 30 | Coal | Fuel Cells<br>o Molten carbonate systems | 1,531 |
| 31 | Coal | Fuel Cells<br>o Advanced concepts | 2,262 |
| 32 | Coal | Coal Liquefaction<br>o Direct liquefaction | 1,850 |
| 33 | Coal | Magnetohydrodynamics | 32,000 |
| 34 | Coal | Surface Coal Gasification<br>o Systems for industrial fuel gas production | 450 |
| 35 | Coal | Surface Coal Gasification<br>o Systems for synthesis gas production | 750 |
| 36 | Coal | Coal Liquefaction<br>o Indirect liquefaction | 750 |
| 37 | Plant & Capital Equipment | Capital Equipment | 1,500 |
| 38 | Plant & Capital Equipment | Construction<br>o General plant projects | 2,500 |
| 39 | Petroleum | Oil Shale<br>o Environmental mitigation | 1,765 |
| 40 | Petroleum | Oil Shale<br>o Oil shale technology base | 4,600 |
| 41 | Gas | Unconventional Gas Recovery<br>o Western tight gas sands | 300 |

| Priority | Program | Activity Description | Amount ($000) |
|---|---|---|---|
| 42 | Gas | Unconventional Gas Recovery<br>o Eastern gas shales | 75 |
| 43 | Gas | Unconventional Gas Recovery<br>o Environmental & advanced research | 108 |
| 44 | Coal | Underground Coal Gasification<br>o Environmental & advanced research | 1,154 |

(a) ETC Program Direction ($26,248)
Headquarters Program Direction ($8,750)

(b) Reduction is not reflected in new structure (i.e., Advanced Res. within Control Technology & Coal Prep., Combustion Sys., Fuel Cells) since the Assistant Secretary's request was developed prior to the restructuring.

### EMPLOYMENT FLOORS

Senator BYRD. I am interested, as I am sure you are, Mr. Secretary, in providing a sense of permanence to the fossil energy research efforts of our country. That is why in 1982 I pressed my amendment to establish employment floors for the Fossil Energy Research Program.

The amendment, for example, requires the Department to continue to employ not less than 250 full-time Federal employees at the Morgantown Energy Technology Center.

What has been the history of compliance with that amendment?

Mr. WAMPLER. We, to my knowledge, have certainly obeyed that law. Our employment floors are at or close to those numbers constantly and, to my knowledge, have been since that amendment.

Senator BYRD. What is the figure there for Morgantown now, full-time Federal employees?

Mr. WAMPLER. For full-time R&D personnel, 250 is the floor, and 250 are on board. For clean coal, the ceiling is 12, and 12 are on board.

Senator BYRD. Well, there would appear to be no doubt, then, that without my amendment the administration would have decimated the fossil program by firing a large number of the employees.

Is that accurate?

Mr. WAMPLER. If you look at the 1983 congressional budget request, it would have requested over a 50-percent reduction in the level of personnel on board.

Senator BYRD. As long as my amendment remains in effect, are the jobs at the Morgantown center and other specified locations safe?

Mr. WAMPLER. Yes, Mr. Chairman; we will obey the law.

### ADMINISTRATION BUILDING AT MORGANTOWN

Senator BYRD. There appears to be almost a departmentwide position not to construct new administrative facilities.

Is that the case?

Mr. WAMPLER. That is generally the case, Mr. Chairman.

Senator BYRD. I recognize the importance of fossil research to America's future, and I am sure you do. May I say I think you are a very dedicated public servant and I think you have your heart in your work.

You and I both recognize that. We recognize not only fossil research's potential for offsetting our petroleum shortfall, but the potential impact on our balance of trade and on domestic jobs as well. But the administration seems prepared indefinitely to continue the management of this crucial program from trailers and temporary facilities and a handful of aging buildings.

Would you agree with me that such conditions have a deleterious effect on employee morale and must, in turn, have a negative impact on the fossil research program?

Mr. WAMPLER. I would strongly suspect that working in temporary quarters does have a derogatory effect on those things, Mr. Chairman.

Senator BYRD. Would you agree that the numerous trailers at the Morgantown Energy Technology Center present very poor working conditions for the staff there?

Mr. WAMPLER. Yes, Mr. Chairman, I do.

Senator BYRD. I believe that housing employees in office trailers for as long as 12 years is unacceptable, and that is why I added $4 million to the fiscal year 1988 continuing resolution to begin construction of a $12 million administrative addition at the Morgantown center.

The administration subsequently placed this project on its pork list which was announced last month. Did you have a role in its inclusion on that list, Mr. Wampler?

Mr. WAMPLER. Mr. Chairman, it is my understanding that was not on the pork list. The University of West Virginia building was on the list. We agree that there is a need for a building to replace those temporary trailers at the Morgantown Energy Technology Center, and it was simply a matter of, as you said earlier, we chose to put limited funds that we had into R&D itself.

But I think no one can make the statement that those conditions at the Morgantown Energy Technology Center are anywhere near being optimal so it was a matter of dollars in not supporting a new facility being built there.

Senator BYRD. Is there any money requested in the fiscal year 1989 budget to complete this project?

Mr. WAMPLER. No; we have not made any request in the 1989 budget. Again, we chose to allocate the limited requests to R&D projects in lieu of facilities.

Senator BYRD. It is my understanding that construction of this new $12 million administrative addition to the Morgantown Energy Technology Center will begin in June.

Mr. WAMPLER. Yes, Mr. Chairman, it will.

We finished the architectural and engineering work. Construction will start sometime in the third quarter of this fiscal year, and it is scheduled for completion in the first quarter of fiscal year 1992.

Senator BYRD. So it is beginning in June, and when is the target date for completion?

Mr. WAMPLER. 1992, first quarter.

Senator BYRD. How do you assume it is going to be funded, since it isn't in the budget?

Mr. WAMPLER. Mr. Chairman, we will continue to look at that in terms of the limited finances that we have. When we went through our priority list we did not see a way that we could request funding for that in light of the fact that our R&D budget was very limited.

Senator BYRD. Mr. Secretary, you will have my help in finishing the project. So proceed as though it were in the budget. [Laughter.]

Mr. WAMPLER. Yes, Mr. Chairman.

Senator BYRD. How many employees will be housed in this new building and are there any planned facilities that have been reduced in scope to fit this project within the $12 million total cost estimate?

Mr. WAMPLER. I am not sure I can give you an accurate answer right now on how many employees will be housed in the building itself. I can furnish you that.

The scope of the project has definitely not been decreased. It has been somewhat increased.

Senator BYRD. Do you have an estimate of how many employees will be housed in the building?

Mr. WAMPLER. I can give you an estimate. The answer I am getting is however that many people are in the trailers, and since I don't know how many people are currently in the trailers to be moved into the new building, I don't know. But I will furnish you that for the record.

Senator BYRD. You don't know how many people are in trailers?

Mr. WAMPLER. I don't think we have an accurate number at hand.

Senator BYRD. Somebody ought to have that figure. They have been in trailers long enough.

Mr. WAMPLER. It is a very good number of people that are in the trailers. I would estimate about one-half of the 250 employees there.

Senator BYRD. One-half of them.

All right, supply that for the record.

[The information follows:]

### NEW ADMINISTRATION BUILDING AT MORGANTOWN

The building will contain approximately 215 people, of which all will be Federal employees.

Presently there are 95 Federal employees and 191 contractor employees in trailers. After the new administration building is constructed, the 95 Federal employees will be relocated to the new building. Of the 191 contractor employees, 73 will remain in trailers and the balance of 118 is envisioned to be housed in permanent type buildings other than the new administration building.

Senator BYRD. And in the future, be sure that somebody has these figures, because I will be asking, the Lord willing. I prefer getting as much information as possible here, on the record right now, rather than later, because sometimes information supplied here opens new avenues for questioning.

I always try to listen carefully to the answers because answers sometimes open up new vistas for questions.

That was how we got Patrick Grey to admit that John Dean probably lied in the Watergate case. What I try to do is know something about the subject to begin with and then carefully listen to the answers. Sometimes they won't answer you. If you are not paying attention, you really don't have the answer, do you?

Mr. WAMPLER. That is true.

Senator BYRD. But if you listen, you know whether he has answered the question or not.

But anyhow, I compliment you on your responses.

Now, you have already indicated when the building will be completed. Now, what was it you indicated as being a pork project in Morgantown? [Laughter.]

That didn't get by me. I was just waiting until I had finished my questions about the trailers.

Mr. WAMPLER. Mr. Chairman, it is very obvious that you were listening.

We did submit on the pork list the METC administration building, the Energy Research Center at West Virginia University and also the Research Center at Oklahoma University.

## CONSTRUCTION OF RESEARCH CENTER AT WEST VIRGINIA UNIVERSITY

Senator BYRD. While we are on the subject of buildings, I added $6 million to the continuing resolution for initial construction of a $24 million National Research Center for Coal and Energy at West Virginia University.

Is that the one you say is on the pork list?

Mr. WAMPLER. Yes, Mr. Chairman.

Senator BYRD. The university would contribute $9 million of this cost. The Federal Government would contribute the remaining $9 million in subsequent years.

What is the status of the agreement with the university on the construction of this energy center?

Mr. WAMPLER. We have received a formal grant application from the university and will be able to negotiate a grant award after the required congressional review period.

The Department transmitted on March 8, 1988, a formal notification to Congress of its intent to vest title to this facility with the university, and we certainly hope that Congress has no objection.

Senator BYRD. When do you expect the agreement to be reached?

Mr. WAMPLER. Well, it is 30 session days after March 8, so just as soon as that is completed we will move forward.

Senator BYRD. Will these funds be made available to the university in the form of a grant?

Mr. WAMPLER. Yes; they will be a grant.

Senator BYRD. I understand that the design is essentially complete; is that correct?

Mr. WAMPLER. Yes, Mr. Chairman, it is.

[The information follows:]

### CONGRESSIONAL REVIEW BOARD—GRANTS TO WEST VIRGINIA UNIVERSITY AND UNIVERSITY OF OKLAHOMA FOR ENERGY RESEARCH CENTERS

This review period expired in late April, and as no objections were heard during this period, the Department intends to proceed with the grant awards.

### ERC AT WEST VIRGINIA UNIVERSITY

Senator BYRD. Do you know of any reason why construction cannot begin on this project by late this summer?

Mr. WAMPLER. Yes; the university must submit an environmental report and receive a National Environment Policy Act clearance before construction can begin. These requirements could possibly delay construction beyond late summer.

Senator BYRD. What else are you doing that is beneficial to the Morgantown Energy Technology Center, and elaborate on that a little bit if you will.

Mr. WAMPLER. Several things.

We do consider the energy technology centers to be again the implementing arm of the organization. The total dollars managed by that center continues to increase each fiscal year. We, for example, at Morgantown increased the responsibility last year when we placed the entire fuel cell effort that was formerly done with NASA at the Morgantown center.

Morgantown is managing the largest of the awarded clean coal projects. For the awarded projects and the ones under negotiation, numerous technologies had their support and had their birth for development at the Morgantown center, and I am talking about the pressurized fluidized bed, the fluid bed gasifier with the hot gas cleanup, underground coal gasification, the AFB fluid bed combustor.

We consider that this center is very important. It is handling our repowering kinds of technologies which are the—I don't want to say most complicated, but certainly highest cost and hold the promise of the greatest increase in efficiency in power generation.

Senator BYRD. Very well.

On the subject of the National Research Center for Coal and Energy at West Virginia University, again here I do not agree with the description of pork, and I will be moving ahead as expeditiously as is possible.

### COAL-DERIVED TRANSPORTATION FUELS

Now, on the subject of transportation fuel substitutes, some 85 percent of U.S. coal production is consumed in electric power generation. Coal presently makes little contribution to the transportation sector, relatively speaking.

Only a few years ago, coal-derived transportation fuels were expected to cost in the range of $50 per barrel with technology that was then under development. I am sure my good friend George Fumich, who is in the audience and who has had a lifelong interest in coal research and has performed a great service as a public servant through his previous activities within the Federal Government will recall that we expected to make such progress, and more.

The projected figure has improved considerably over the last few years or even over the last year, because of some new technological advances.

Would you agree with that?

Mr. WAMPLER. Yes, Mr. Chairman, I would.

Senator BYRD. Which coal technologies are you presently developing that will have application to the transportation sector and what are the projected costs per barrel for each?

Mr. WAMPLER. To begin with, by both direct and indirect liquefaction, we are projecting now a $30 to $35 cost as compared to costs that we were projecting a number of years ago as high as $60, $65. It is also important no doubt to note that the Ohio/Ontario clean coal project is a coal processing demonstration project.

The second area that we are looking at very extensively now is coal/water slurry. We are looking at a cost of $16 to $20 per barrel equivalent for boiler use. That is somewhat more expensive if you use it in the transportation sector because of the additional cleaning you have to do to it. So you can see that is about there right now.

The one very exciting thing that we are looking at now is mild gasification and the development of coproducts, and we are projecting that this fuel will be $25 to $30 a barrel. I would suspect that will prove to be more cost effective when you factor in the price of all the products or the revenue from all the products that you are developing. So we are looking at some pretty exciting things.

The Heat Engine Program—that is the use of coal/water slurry and gas turbines and diesels—is a program that we have started. Also, heavy off-road vehicles where we see the greatest possibility in the transportation market later on. The quantity of potential coal/water slurries used in railroads is simply not that great because of the limited number of trains, but if you get involved in the heavy off-road vehicles, that could become a tremendous market.

By the way, the National Coal Council is currently looking at this issue and I would expect to have some very definitive figures on the possibilities within 1 month or so.

But those are the kinds of things that we are looking at.

Senator BYRD. Will these be clean burning fuels?

Mr. WAMPLER. Oh, they absolutely would; yes.

Senator BYRD. These would help to open up new markets to our coal companies and provide other benefits.

How would mild gasification change the way that most coal companies presently do business?

Mr. WAMPLER. It would change, simply stated, the coal industry to a vertically integrated industry. It would give the coal industry something that it has not had in the past versus the petroleum industry, and that is a process part of the industry that can become very important to enhance the value of coal through the development of coal products.

We see a mild gasification process that simply takes the top end, if you will, off the coal, producing some products like a diesel-like product, some jet fuel products, gas streams that can be used back at the mine site to help increase their efficiency. We see this as an exciting possibility for the industry. But it would give the industry some vertical integration that it has not had in the past.

Senator BYRD. Do you consider these technologies to be real breakthroughs?

Mr. WAMPLER. Yes; I do consider them, especially the combination of the technologies. There is nothing really new in the technology itself. It is just the vertical integration along with putting the technologies together that could be a breakthrough.

Senator BYRD. Congress has consistently added funds for these technologies. Last year we added $3.8 million for mild gasification research over and above the $1 million which the administration requested.

Do you believe that we would be on the brink of any major developments to convert coal into usable transportation fuels without these congressional add-ons?

Mr. WAMPLER. Mr. Chairman, that is a difficult question to answer. I will try to give you as honest an answer as I can. Some research, without making a value judgment on this, but some research is a function of time and dollars. We all recognize that. I think that the add-on certainly, if I could answer it this way, certainly didn't hurt. It would be difficult for me to say where we would be at this particular moment with $1 million a year versus the $3.8 million. But it is an important program.

While I can't quantify it, I could certainly guess that it did get us there a little bit faster than we would have otherwise.

Senator BYRD. Do you consider the payoff to be worth the effort and worth the cost?

Mr. WAMPLER. Oh, I certainly think so.

To give you some idea of the importance of this liquid supply, I know we put together study teams all the time, but we have got a study team right now that is currently addressing the need to change our program dramatically to direct the liquid supply problem.

I simply think that we discovered some things in the last year. For example, in our opinion, there is a lock step between where we are now and where we eventually will go in full-blown fuels production from coal that may just well be this mild gasification step.

So we are doing a very quick study based on what we have learned to this point. I would imagine that this is directed at the 1990 budget, I realize, but I would imagine you will see a good change in direction in the 1990 budget based on what this team finds.

We certainly agree that there is a great need to address this problem.

Senator BYRD. I urge you to press ahead with these research efforts and to champion within the administration the necessary funding for an aggressive coal research program aimed at transportation applications.

### ENHANCED OIL RECOVERY

What other research is being conducted to reduce our independence on imported oil?

Mr. WAMPLER. We are doing several things. One is, we are taking an intensified look at enhanced oil recovery to look at the cost. We are projecting costs in the areas that we are taking a look at, at $25 to $40 a barrel.

We are doing a study now that addresses the potential of coal to penetrate the light industrial, the residential/commercial markets, and the transportation sector. So we are expecting some very definitive information from that study that will give us some good ideas in terms of future research.

So those are the two that immediately come to mind. I think that everything we try to do is based, in some form, on the back-out of insecure supplies of imported oil because that surely is getting to be a problem and seems to be intensified.

### INTERNATIONAL MARKETS FOR COAL

Senator BYRD. Now let's turn to the subject of international markets for U.S. coal. I understand that the Secretary of Energy strongly supports the promotion of U.S. coal exports.

You have traveled abroad fairly extensively as the Assistant Secretary for Fossil Energy. When I was in Italy this past February, I had an opportunity to meet with officials of their national electric energy agency, and we discussed your then just concluded bilateral agreement on transfer of clean coal technology.

I understand that about one-half of the Italian steam coal imports come from the United States and they are planning a substantial expansion of their electric power generation from coal. That is what we were told.

Was that what you were told?

Mr. WAMPLER. Yes, Senator, we were.

Senator BYRD. What headway did you make in promoting domestic coal exports during your trip to Italy and on other foreign trips?

Mr. WAMPLER. We like to think we made a good deal of progress. I think if you look at the level of imports of United States coal that Italy has carried forward for the past several years, some of this at last has to do with the good relationship we have developed in research and development.

We have, as I recall the last time I looked, about 42 agreements in the Fossil Energy Department with foreign countries, foreign R&D. What we are trying to do with a good number of these agreements is trying to leverage those into coal exports or a combination of coal technology and product exports. We think that there is no doubt that we can do that.

To give you a couple of examples, we are right now doing what we call a less developed country initiative, in that we are trying to gather the information so that U.S. equipment manufacturers and coal companies can penetrate that market, a market that, by the way, we think they have completely missed, with a technology that we have, plus a long-term contract for U.S. coal in those countries.

I think there is no question about the fact that the more that we increase these countries' familiarity with U.S. technologies and do R&D exchanges, that we should be able to leverage U.S. coal sales through R&D agreements. We have clearly done it in the case of Italy. The relationship there is very good and very sound, and we feel good about the possibilities of increased exports to Italy.

If I recall the figures correctly, they were talking about quadrupling in the next 20 years their need for power, and a good part of that will certainly be generated from coal.

Senator BYRD. Italy has made a calculated decision, has it not, in the choice between nuclear energy and coal?

Mr. WAMPLER. Yes, sir.

Senator BYRD. For that reason, the Italian Government is planning to step up its use of coal for the generation of power.

Is that accurate?

Mr. WAMPLER. Yes, Senator; that is accurate.

Senator BYRD. Would you provide for the record a listing of your recent international agreements and identify how coal exports are involved in each, as appropriate?

Mr. WAMPLER. We would be happy to do so.

[The information follows:]

## INTERNATIONAL AGREEMENTS

FE currently participates in 42 bilateral research and development (R&D) agreements. Of these, 15 are related to various coal technology areas. In addition, FE cooperates in three multilateral agreements through the International Energy Agency (IEA) that involve several coal technologies. These agreements are listed in Exhibit 1. Many of the countries with which FE cooperates in the coal R&D area already purchase significant quantities of coal from the United States. Cooperation with these countries, therefore, enhances their capabilities to utilize both the coal they produce themselves and the coal they purchase from the United States. In those cases where U.S. coal is imported, R&D cooperation encourages the increased use of coal and thus provides expanded markets for U.S. coal exporters. R&D cooperation also encourages the export of U.S. coal technologies and may, as a result, encourage new imports of coal.

Italy, for example, is a net coal importer with a great deal of interest in several U.S. developed technologies which can improve the efficient utilization of these coal imports. Therefore cooperation with Italy provides us with the opportunity for export of both coal and coal technology. Coal technology agreements with Korea, Japan and the Peoples' Republic of China (PRC) are largely the result of the Administration's efforts to increase coal exports to the Pacific Rim. As current importers of U.S. coal, Korea and Japan are interested in exchanging coal related technical information for more efficient use of the coal and to ensure a stable supply of energy resources to meet their rapidly growing requirements. In the case of PRC, the abundance of their domestic coal resources, coupled with limited intrinsic technology development, enhances the potential for U.S. coal technology export.

Coal technology agreements with Brazil and the United Kingdom provide enhanced potential for technology exports as well as provide the U.S. with demonstration opportunities outside of our own budgetary scope. A cooperative agreement with Spain to perform laboratory experiments for developing the underground coal gasification process provides a potential for coal technology export to that country.

FE is therefore using its bilateral R&D agreements to support U.S. coal and technology sales overseas in two ways. First, by cooperating with those countries that are current importers, coal sales from the U.S. may be expanded. Second, by cooperating with coal producers, the market for coal technologies is encouraged, which may also lead to the subsequent import of U.S. coals.

## SUMMARY OF ACTIVE BILATERAL PROJECTS
## APRIL 1988

| COUNTRY PROJECT NAME | FUEL | IMPORT US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| BRAZIL | | Y | | |
| Development of Technology Utilizing the Site of the Triunfo Coal Deposits in Rio Grande Do sul (G.A.) | Coal | | May 26, 1984-<br>Indefinite | Develop an underground coal gasification project utilizing the site at Triunfo in Rio Grande Do Sul to produce synthetic gas and other fuels for import substitution. |
| Exchange of Technical Information and Cooperation in the Field of Underground Coal Gasification. | Coal | | January 21, 1985-<br>January 21, 1990 | Feasibility study of a suitable site with a 4 meter seam of 55% ash coal near Porto Alegre, Rio Grande Do Sul. |
| Feasibility Study of the Application of Underground Coal Gasification to the Triunfo Coal of Brazil. | Coal | | May 15, 1986-<br>September 1, 1988 | Define and authorize activities for a feasibility study of the applicability of underground coal gasification to the Triunfo coal deposits in Brazil. |
| CANADA | | N | | |
| Tar Sands and Heavy Crude Oil (G.A.) | Oil | | June 4, 1979-<br>December 4, 1989 | Establish framework for cooperation with R&D activities in tar sands and heavy oil extraction, processing, and related technologies. |
| Resource Characterization of Tar Sands | Oil | | June 4, 1979-<br>December 4, 1989 | Develop a data base of tar sands information for use by the two countries and their publics. |
| Steamflooding with Additives - Tar Sands | Oil | | September 13, 1982<br>December 4, 1989 | Coordinate laboratory experiments to evaluate in-situ steam processes enhanced by additives. |
| Dissemination of Information | Oil | | September 12, 1982<br>December 4, 1989 | Provide guidelines for the dissemination of information on tar sands and heavy oil. |

SUMMARY OF ACTIVE BILATERAL PROJECTS (Continued)

| COUNTRY<br>PROJECT NAME | FUEL | IMPORT US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| Monitoring Frontal Movements in Thermal Recovery | Oil | | January 1986–<br>December 4, 1989 | Conduct programs of experimentation to evaluate selected geophysical techniques for determining spatial shape and location of thermal fronts in steamflooding, in-situ combustion, and in-situ steam processes enhanced by various additives for oil recovery from tar sands and heavy oils. |
| Collaboration in Energy Research and Development (G.A.) | All | | December 4, 1986–<br>December 4, 1996 | Establish a framework for collaboration between the parties in energy research and development activities. |
| R&D of Natural Gas Hydrates | Gas | | February 16, 1988–<br>February 16, 1998 | Establish a framework for cooperative activities in natural gas hydrates research. |
| **FINLAND** | | Y | | |
| Cooperation in Energy Research and Development (G.A.) | All | | November 6, 1980–<br>November 6, 1990 | Cooperate in a variety of energy technologies, including fossil fuels technologies. |
| **FRANCE** | | Y | | |
| Exchange of Information in the Area of Enhanced Oil Recovery | Oil | | March 1988–<br>March 1991 | To establish an exchange of information resulting from research and field testing undertaken by each of the parties to increase the know-how on certain mechanisms occurring during the application of specific enhanced oil recovery techniques and an eventual integration of the results of the laboratory into field operations. |
| **INDIA** | | N | | |
| Cooperation in Underground Coal Gasification (G.A.) | Coal | | August 31, 1987–<br>August 31, 1992 | Research and development activities pertaining to underground coal gasification. |

SUMMARY OF ACTIVE BILATERAL PROJECTS (Continued)

| COUNTRY<br>PROJECT NAME | FUEL | IMPORT US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| ISRAEL | | Y | | |
| Cooperation in Energy Research and Development (G.A.) | All | | June 3, 1984-<br>June 3, 1989 | Identify and implement energy research and develop energy technology in each country. |
| Exchange of Information and Personnel | Coal/Oil | | June 3, 1984-<br>June 3, 1989 | Exchange information and personnel of mutual interest. |
| Fluidized Bed Retorting and Combustion of Israel Oil Shales | Oil | | September 29, 1987-<br>September 29, 1988 | Develop a fast-heating rate oil shale retorting process. This involves modification of a research facility, performing analytical tests, and preparing a process design basis for a retort-combustion system. |
| ITALY | | Y | | |
| Cooperation in Fossil Fuels Research and Development (G.A.) | All | | December 5, 1985-<br>December 5, 1990 | Establishment of cooperative fossil energy R&D through activities such as scientific and technical information exchange, scientific exchange meetings, and joint research planning. |
| A Program on Direct Coal Liquefaction | Coal | | April 11, 1986-<br>December 31, 1988 | Conversion of coal to liquid hydrocarbons. To improve understanding of techniques and approach of direct coal liquefaction processing. |
| Enhanced Oil Recovery | Oil | | July 8, 1987-<br>December 31, 1990 | Provide a better understanding of the behavior of oil production processes in the presence of large variations in reservoir properties. |
| JAPAN | | Y | | |
| Cooperation in R&D in Energy and Related Fields (G.A.) | All | | May 2, 1979-<br>May 2, 1989 | Cooperate in R&D to ensure stable supplies of energy resources. |
| Coal Energy Research and Development | Coal | | May 19, 1986-<br>May 2, 1989 | Establish comprehensive cooperation in coal R&D. |

SUMMARY OF ACTIVE BILATERAL PROJECTS (Continued)

| COUNTRY PROJECT NAME | FUEL | IMPORT US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| KOREA | | Y | | |
| Cooperative Laboratory Relationship (G.A.) | Coal | | November 6, 1981-<br>October 8, 1991 | Exchange of coal-related information, laboratory staff, and technical consultation between PETC and KIER/KAIST. |
| MEXICO | | Y | | |
| Cooperation in Petroleum Research and Development (G.A.) | Oil/Gas | | June 20, 1983-<br>June 20, 1988 | Exchange scientific and technological information regarding petroleum research and development. Establish and develop basic and applied research programs. |
| NORWAY | | Y | | |
| Fossil Energy Research and Development (G.A.) | Oil | | March 1987-<br>March 1991 | Establish an exchange of scientific and technological information regarding fossil energy R&D. Conduct joint EOR research projects for geoscience reservoir characterization, mechanisms of oil mobilization and displacement, and improved process predictability and performance. |
| PRC | | N | | |
| Cooperation in the Field of Fossil Energy Research and Development (G.A.) | All | | April 16, 1985-<br>April 16, 1990 | This agreement establishes a framework for cooperation in fossil energy research and development through cooperative research activities including personnel exchanges, site visits, seminars, conferences and meetings, exchange of samples, materials, instruments, and test components, as well as jointly conducted research. |
| Coal Preparation and Waste Stream Utilization | Coal | | October 13, 1987-<br>October 13, 1992 | R&D activities in the field of waste stream utilization and coal preparation technology with emphasis on physical and physiochemical coal benefication. |

SUMMARY OF ACTIVE BILATERAL PROJECTS (Continued)

| COUNTRY<br>PROJECT NAME | FUEL | IMPORT<br>US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| Atmospheric Fluidized Coal Bed Combustion | Coal | | October 13, 1987-<br>October 13, 1992 | R&D activities in the field of atmospheric fluidized bed (AFB) combustion. Emphasis to be on expanding and accelerating AFB data base and developing advanced technology for economically viable generating systems. |
| SPAIN | | Y | | |
| Cooperation in the Improved Industrial Catalysts | Oil/Coal | | April 22, 1986-<br>April 22, 1989 | Select catalysts for characterization and life studies. To study their activity, selectivity, and comparison with commerical catalysts. |
| Scientific and Technological Cooperation in the Field of In Situ Coal Gasification | Coal | | April 22, 1986-<br>April 21, 1989 | Perform laboratory experiments which will provide data in developing the UCG process and environmental models for Spanish coal and to demonstrate the potential for application of UCG technology in Spain. |
| UNITED KINGDOM | | Y | | |
| Collaboration in Energy Research and Development (G.A.) | All | | October 18, 1984-<br>October 18, 1989 | Establishment of bilateral cooperation in fossil energy, energy conservation, and renewable resource research through an exchange of scientific and technical information; exchange of information in the R&D process; exchange of technical personnel and research materials; technical exchange visits, meetings, workshops, seminars; shared use of facilities; conduct of joint projects. |
| Field of Discrepancy Analysis of Enhanced Oil Recovery | Oil | | September 19, 1986-<br>September 19, 1991 | Joint research into the area of discrepancy analysis. |
| Grimethorpe Pressurized Fluidized Bed Test Facility | Coal | | March 19, 1986-<br>July 30, 1988 | Install, test, and evaluate a coal-water mixture feed system and test and evaluate an in-bed tube bundle combustor. |

SUMMARY OF ACTIVE BILATERAL PROJECTS (Continued)

| COUNTRY PROJECT NAME | FUEL | IMPORT US COAL | DURATION | OBJECTIVE |
|---|---|---|---|---|
| VENEZUELA | | N | | |
| Energy R&D (G.A.) | All | | March 6, 1980-<br>March 6, 1993 | Establish exchange of energy technologies and conduct joint projects. |
| Joint Characterization of Heavy Crude Oil | Oil | | July 10, 1980-<br>March 6, 1993 | Exchange published technical information and jointly modify or develop new techniques for the characterization of heavy crude oils and heavy ends. To develop detailed characterization of the oils and correlate the data process sequences to develop techniques for predicting product slates as a function of feedstock and reaction conditions. |
| Cooperation in Supporting Research | Oil | | July 10, 1980-<br>March 6, 1993 | Cooperate in university, energy technology center, and national laboratory research programs in enhanced oil recovery techniques. |
| Evaluate Past and Ongoing EOR Projects | Oil | | July 10, 1980-<br>March 6, 1993 | Improve the predictability of EOR process technologies as they apply at reservoir conditions. |
| EOR Thermal Process | Oil | | September 29, 1980-<br>March 6, 1993 | Develop or increase the efficiency of specific enhanced oil recovery thermal processes. |
| Coal Preparation, Combustion, and Related Analytic Technology | Coal | | February 5, 1982-<br>March 6, 1993 | Cooperate in coal technologies at universities, energy technology centers, and national laboratories. |
| On-Site Training of Petroleum Engineers | Oil | | March 14, 1984-<br>March 6, 1993 | Training of Venezuelan petroleum engineers at Elks Hill, Naval Petroleum Reserve Facility. |
| Geochemistry | Oil | | August 14, 1987-<br>March 6, 1993 | Share in technology exchange on the prediction of petroleum occurrence. Improve present modeling capability to predict the occurrence of petroleum from thermal maturation of kerogen bearing source rocks in geological formations. |
| Microbial Enhanced Oil Recovery (MEOR) | Oil | | February 26, 1988-<br>August 25, 1989 | Cooperate in the area of application of microorganisms in enhanced oil recovery both with and without porous media. |
| YUGOSLAVIA | | Y | | |
| Cooperation in Research and Development of Underground Coal Gasification | Coal | | September 1985-<br>September 1988 | Laboratory-scale gasification experiments to provide optimal operating conditions for a field test. Criteria to be developed include coal characteristics, coal geology and hydrology, environmental impacts, and market conditions. |

## SUMMARY OF ACTIVE MULTILATERAL PROJECTS
## APRIL 1988

| PROJECT NAME | COUNTRIES | | FUEL | DURATION | OBJECTIVE |
|---|---|---|---|---|---|
| Coal Research Service | Australia<br>Austria<br>Belgium<br>Canada<br>Denmark<br>Germany<br>Ireland | Japan<br>Netherlands<br>New Zealand<br>Spain<br>Sweden<br>United Kingdom<br>United States | Coal | 1975–Indefinite | Assess the future economics of coal supply and use to assist in the formulation of new research projects and evaluation of coal conservation techniques applied to individual countries' needs.<br>Collect and disseminate information about all aspects of coal technology to assist workers in the field and to increase general awareness that coal can meet future energy needs. |
| o Coal/Oil, Coal/Water, and Other Coal/Liquid Mixtures (G.A.) | Canada<br>Italy<br>Japan<br>Netherlands | Spain<br>Sweden<br>United Kingdom<br>United States | Coal/Oil | March 23, 1981-Indefinite | Provide for cooperative research development, demonstration, and exchange of information regarding coal/oil mixtures. |
| o Coal/Oil, Coal/Water, and Coal/Liquid Mixtures — Exchange of Base Technology Information | Canada<br>Italy<br>Japan<br>Netherlands | Spain<br>Sweden<br>United States | Coal/Oil | December 1, 1982-December 31, 1988 | Expand and accelerate the coal/liquid mixture technology base. |
| Enhanced Oil Recovery | Australia<br>Austria<br>Canada<br>Denmark<br>Egypt | Germany<br>Japan<br>Norway<br>United Kingdom<br>United States | Oil | May 22, 1979-Indefinite | Carry out fundamental studies, laboratory experiments, and field tests to develop feasible application of enhanced oil recovery techniques. |
| o Coal Combustion Science (G.A.) | Australia<br>Canada<br>Denmark<br>Finland<br>Germany | Italy<br>Netherlands<br>Sweden<br>United States | Coal | March 27, 1985-March 27, 1991 | Dissemination of technical information results of coal combustion research. |

## SUMMARY OF ACTIVE MULTILATERAL PROJECTS

| PROJECT NAME | COUNTRIES | | FUEL | DURATION | OBJECTIVE |
|---|---|---|---|---|---|
| o Coal Combustion Science | Australia<br>Canada<br>Denmark<br>Finland | Italy<br>Netherlands<br>Sweden<br>United States | Coal | March 27, 1985-<br>March 27, 1991 | Enhance coal combustion research through cooperative planning of research investigation. |
| Program of Research on Multiphase Flow Sciences (G.A.) | Canada<br>Norway | United Kingdom<br>United States | Coal/Oil | March 16, 1987-<br>March 16, 1990 | Cooperate in research, information exchange, and other technology transfer activities on multiphase flow. |
| Basic and Applied Research in the Field of Multiphase Flow Sciences | Canada<br>Norway | United Kingdom<br>United States | Coal/Oil | March 16, 1987<br>March 16, 1990 | Improve understanding of fundamental behavior and properties of multiphase flow in fossil energy processes through theoretical development and experimental data gathering and verification.<br>Develop improved research instrumentation.<br>Provide participants access to advanced research apparatus and research instrumentation. |
| UNITAR/UNDP Information Center for Heavy Crude and Tar Sands | Canada<br>Germany<br>Italy<br>Japan<br>Jordan | Nigeria<br>Trinidad and Tobago<br>United States<br>Venezuela | Oil | 1979-Indefinite | Exchange of technical information on heavy crude and tar sands on a worldwide basis. Assess these resources and guide countries in developing their energy potential. |

| COUNTRY<br>PROJECT NAME | FUEL | DURATION | OBJECTIVE |
|---|---|---|---|
| **AUSTRALIA** | | | |
| Cooperation in Oil Shale R&D | Oil | TBD | To undertake joint research in oil loss mechanism, chemical stability of spent shale, mineral reactions and their relationships to air pollution issues, mining studies and systems analysis. |
| **ISRAEL** | | | |
| Combustion of Pulverized Coal in Counter-Current Flow | Coal | 1987 - | To develop experimental data for the study of hetergeneous combustion in practical systems. To develop a mathematical model to allow the user to optimize the design and the operating conditions of a counter-current combustor. To develop two prototypes of the combustor for different fuel consumption and different kinds of coal. |
| **MEXICO** | | | |
| Chemical Analysis Characterization of Heavy Crude Oils | Oil | 1987 - 1988 | Characterize components of Mayan crude and identify causes that affect compatibility, thermal stability, and corrosion to determine correlations for selecting refining processes. |
| High-Pressure Thermodynamic Studies of Materials Important in Petroleum Processing and in Natural Gas Custody and Transfer Operations. | Oil | 1987 - 1988 | Cooperative development of experimental techniques for the measurement of calorimetric and high pressure-volume-temperature properties. |

SUMMARY OF PLANNED BILATERAL PROJECTS (Continued)

| COUNTRY PROJECT NAME | FUEL | DURATION | OBJECTIVE |
|---|---|---|---|
| PEOPLES REPUBLIC OF CHINA | | | |
| Cooperation in the Area of Surface Coal Gasification | Coal | TBD | To initiate cooperative research and development activities in the field of surface coal gasification with emphasis on technical information exchange related to cost effective and environmentally acceptable coal gasification systems. |
| Fossil Energy Research and Development on Enhanced Oil Recovery Research | Oil | TBD | Improve the understanding of the fundamental mechanisms of mobilization and displacement of oil by alkaline and enhanced alkaline flooding. Improve the predictability and displacement/sweep efficiencies of alkaline and enhanced alkaline flooding. |
| Cooperation in the Area of Coal-fired MHD Power Generation | Coal | TBD | To further the development of coal-fired magnetohydrodynamics (MHD) power generation technology. |
| UNITED KINGDOM | | | |
| Collaborative Coal Conversion Research | Coal | TBD | To investigate the use of novel catalysts for upgrading coal derived materials, especially hydropyrolysis tars. |

Senator BYRD. Have you tried your magic wand on Japan?

Mr. WAMPLER. I have not to this point, Senator. I think that we have a very good relationship with Korea. I think that that relationship will prove to be fruitful in the future.

Senator BYRD. How do you fund these coal export activities, since they are not specifically set out in the budget request?

Mr. WAMPLER. Right now, we have a line item in our budget. It is called technical and economic analysis, and we are funding those out of that budget line item.

Senator BYRD. Would a line item for coal export activities be useful? Is that what you are talking about?

Mr. WAMPLER. Either that or expanding that one line item to indicate exports. I think it is important to note, however, that a lot of these agreements that we are entering into do not require a great deal of money. It is simply the relationship that is set up, and there is a lot of quid pro quo. In fact, we are insisting that the United States get equal or, hopefully, more value out of these agreements than it gives.

So it is not an item that I would see ending up being a massive line item. It is more of travel and those kinds of things that is involved in that line item. But that line item expanded, or a new line item certainly would be helpful.

Senator BYRD. And what is the line item now?

Mr. WAMPLER. Technical and economic analysis, under the advanced research and technology development line item.

Senator BYRD. Are you doing other things under the Secretary's coal export policy that you would like to mention here?

Mr. WAMPLER. We plan to do several. Most of these things are based around the fact that we feel with the large Clean Coal Technology Program that we have underway, that clearly the United States is going to be in an advantageous position in terms of new technologies.

Countries all over the world are beginning to be faced with environmental issues, and we feel that these technologies are going to be very attractive to exports. So we are looking at certain things like the use of small combusters in Europe, specifically studying those, and we have had people that have traveled extensively in Asia to look at the possibility of just simply selling the technology there, since they have indigenous supplies of their own coal resources.

But we have been pretty careful to try to structure all of these projects with both the technology and the coal, if you will, being included in a long-term package. We have made efforts to work with AID and we are working with AID. We also are meeting with the Export-Import Bank to look at certain issues that they can be helpful with.

So we are trying a very broad spectrum of ideas to improve U.S. coal exports, and I think we are going to be successful.

Senator BYRD. The trade bill which will be coming to the floor of the Senate, probably next week, following the House action this week on the conference report, will provide for additional activities which are expected to increase our overall exports and improve our balance of payments situation.

So I look with considerable enthusiasm on this effort that we are talking about here. Would not a line item on this enable you to work more effectively within the administration to pursue and enhance coal export policies and potential?

Mr. WAMPLER. A line item could be helpful from that standpoint because it would provide, obviously, some clear congressional direction to what the Secretary has made a decision to go forth with.

Again, I don't see it as a large monetary item, but the fact that a line item is there could be very helpful.

### TENNESSEE VALLEY AUTHORITY

Senator BYRD. Senator Ford had asked to have some questions answered on the record.

It is his understanding that while the Tennessee Valley Authority has a project remaining on the B list of the first solicitation, the Comptroller General has ruled that their power revenues cannot be used to support the required cost sharing, thus eliminating any real hope that TVA could raise the non-Federal funds to sponsor a clean coal demonstration.

Is this correct?

Mr. WAMPLER. Yes; that is correct, Mr. Chairman.

Senator BYRD. What would be lost to the program if a large utility such as the TVA is unable to compete?

Mr. WAMPLER. I think the loss of any large utility would be unfortunate for the program. I think that we need a broad spectrum of utilities across the Nation to complete this program.

Senator BYRD. Would you be more specific with reference to the TVA, either here or for the record?

Mr. WAMPLER. I would prefer to do that for the record, Mr. Chairman.

Senator BYRD. What action would be necessary to ensure that TVA would have an opportunity to participate in the clean coal program?

Mr. WAMPLER. As I understand it, there are two possible fixes. One is to work with the Comptroller General to get a clarification of his opinion; or, second, would be required a legislative fix to the problem.

Senator BYRD. Would you review and comment for the record on some legislative language, which I may propose with Senator Ford, to solve this problem? This is a matter of serious concern with him, and I would like to have that information if I could.

Mr. WAMPLER. I would be very glad to, Mr. Chairman.

[The information follows:]

### TVA'S PARTICIPATION IN THE INNOVATIVE CLEAN COAL TECHNOLOGY PROGRAM

The Tennessee Valley Authority may use funds it derives from its power program, including appropriated or nonappropriated funds, as all or part of its cost share under the Department of Energy's fossil energy clean coal technology demonstration programs established under Public Laws 99–190 and 100–202 or any other law hereinafter enacted.

## DOE COMMENTS ON PROPOSED TVA LEGISLATION

The proposed language would enable the Tennessee Valley Authority to use power program funds for cost-sharing proposes for demonstrations under the fossil energy clean coal technology demonstration programs. The Department of Energy has no objection to the proposed legislation.

## PREPARED STATEMENT OF SENATOR NICKLES

Senator BYRD. We have received a statement from Senator Nickles which he would like to have placed in the record at this point.

[The statement follows:]

## STATEMENT OF SENATOR DON NICKLES

Mr. Chairman, I look forward to hearing today from Assistant Secretary Wampler on the Department of Energy's fiscal year 1989 budget request for clean coal technology and fossil energy R&D. The Office of Fossil Energy is the one organization in the Department of Energy that focuses on the extraction and efficient use of our Nation's coal, oil, and gas reserves.

Last year's energy security report, issued by DOE in March 1987, highlighted the fact that the United States is self-sufficient in all types of energy except liquid transportation fuels—yet that one weakness contributes enormously to our trade deficit and our vulnerability to the policies of foreign governments. I believe that there is an imbalance in budget priorities when the DOE budget request for oil research is not even 1 percent of the civilian DOE budget.

Our imports of petroleum are just under 40 percent of our total petroleum consumption—and by everyone's estimate will increase. The price tag for these imports is high: For example, last August the United States' net imports of crude oil and petroleum products was 6.67 million barrels a day, worth approximately $125 million in net imports every day. Last fall, petroleum imports constituted about 12 percent of the Nation's total imports.

Of course, the detrimental impact of our dependence on imported oil is expected to grow both absolutely and as a percentage of our trade imbalance. EIA's recent annual energy outlook base case predicts that net imports of petroleum will increase to over 10 million barrels a day by the year 2000. EIA estimates the price of oil in 2000 will be $30.76 per barrel, which means a monthly bill of over $9 billion in 1987 dollars; over three times the current monthly bill for imported oil. For the proper perspective, February's trade deficit—which caused the stockmarket nose-dive on Thursday was about $11.3 billion not counting the $2.5 in oil imports.

It is, therefore, ironic that as the Senate begins debate on the conference report to the trade bill, the only provision that directly addresses our tremendous trade deficit in energy is the repeal of the ill-conceived windfall profit tax.

The Interstate Oil Compact Commission estimates that more than twice as much oil remains in the ground in the United States as has ever been produced here. Conventional recovery has already produced 142 billion barrels and counts as reserves another 27 billion barrels. The Bartlesville project office's TORIS model estimates that there are 324 billion barrels of oil remaining in place.

Mr. Wampler is to be congratulated for his efforts to improve the chances that the private sector might be able to recover more of this enormous resource. Mr. Wampler has begun to address last year's report of the Energy Research Advisory Board which said that the Federal Government is not doing enough to improve the knowledge of reservoirs and extraction technology.

I note that the enhanced oil recovery budget request for fiscal year 1989 is actually modestly above the fiscal year 1987 appropriations, and I commend the attempt to again obtain funding for cooperative ventures with industry. However, I am interested to hear why the DOE has virtually zeroed-out the unconventional gas recovery request.

Perhaps more important than an modest increase in dollars to the future of enhanced oil recovery is Mr. Wampler's response to the ERAB report's recommendation to consolidate the dozen or more DOE oil and gas geoscience and production technology programs into one organization. ERAB hopes that that office could then develop and manage an analytically based strategic plan for increasing oil and gas recovery.

Mr. Wampler has established both an Office of Geoscience Research and a Hydrocarbon Geoscience Coordinating Committee within the Office of Fossil Energy. I look forward to learning how these important structural chances has impacted the fiscal year 1988 appropriation line items. In particular, I want to know whether the Office of Geoscience Research could benefit from a dedicated lump sum appropriation.

## ADDITIONAL COMMITTEE QUESTIONS

Senator BYRD. This concludes our questions for this morning. I want to thank you for your testimony today.

We will have some additional questions from Senator Burdick and from myself and others which will be submitted for written responses for the record.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### Clean Coal

Question: You commented favorably on many aspects of S. 879, the Clean Coal Technology Deployment Bill, during this hearing last year and during the consideration of that bill by the Senate Energy and Natural Resources Committee.

This January 14th, the President's Task Force on Regulatory Reform recommended that he pursue many of these same deployment measures. What specific measures do S. 879 and the Task Force recommendations have in common?

Answer: There are several elements of S. 879, which are consistent with the findings and activities of the Presidential Task Force:

- First, there is a common recognition that a successful Clean Coal program must recognize both demonstration and deployment factors. Both S.879 and the Presidential Task Force recommendations recognize that the regulatory aspects of the power industry must be addressed in developing a strategy for deployment of innovative technologies once they have been demonstrated.

- Second, a joint recognition of the need for the Federal Government to serve as a model for this deployment strategy exists. The Presidential Task Force recommended several incentives such as incentive rates of return, accelerated amortization and allowance for construction work in progress ("full CWIP") that are also addressed in S.879.

- Third, both S.879 and the Presidential Task Force recognized the need to consider both the efficiency of the technologies and the degree to which states have adopted deployment factors in the evaluation of proposals submitted for the cost sharing of CCT demonstrations.

Question: What other measures did the Task Force recommend?

Answer: The Task Force made recommendations in one other area; namely, that EPA pursue certain environmental management approaches (e.g., use of so-called emissions "bubbles"), and expand the availability of more flexible permitting procedures.

Question: How will all of these measures be helpful in commercializing these technologies?

Answer: Each measure has been prepared to provide an appropriate incentive in those areas identified as having significant existing barriers to subsequent deployment and commercialization of Clean Coal Technologies. As noted, these barriers can be both financial and regulatory and serve to create obstacles requiring more resources to overcome than potential users can dedicate. These incentives lower those barriers to a point that it is feasible for the participant to consider the technology options established by means of the demonstration program and use them as an alternate source of energy.

Question: The Task Force made its recommendations more than three months ago. Did the President formally endorse a plan of action?

Answer: The President accepted the recommendations of the Task Force on January 23, 1988. Although a plan of action was not formally endorsed at the time of the announcement, the Department subsequently has initiated a number of activities that are implementing these recommendations in part.

Question: What has been done to implement these recommendations?

Answer: The DOE has initiated several activities in response to the recommendations of the Task Force:

- o The February 22, 1988, PON (and subsequent modification) stated that "DOE will consider giving preference to projects located in states for which the ratemaking bodies of those states treat the innovative clean coal technologies the same as pollution control projects or technologies," and that this consideration would be used only as a tie-breaker and only when it did not bias regional or technological diversity.
- o The PON identified cost-effectiveness as one of the criteria considered in evaluation of proposals under the ICCT program.
- o DOE is now in the process of developing a regulatory proposal to initiate the recommended change in FERC's electricity rate-setting regulations. DOE has authority to do this under Section 403 of the DOE Organization Act. Our plan is to propose the rulemaking by July 1, 1988. Once the regulation is proposed, however, it will be FERC's responsibility to promulgate the rule (or decide not to) and to implement the rule.

## COAL EXPORT

Question: If funds were available, how much would be used in FY 1988 to fund a coal export initiative and what would you do?

Answer: If funds were available in FY 1988, Fossil Energy would use the requested $450,000 of reprogrammed funds to fund a project titled "U.S. Fossil Fuel Technologies for Developing Countries." These funds would be used to complete Phase II of a four phase effort on this project that would provide a basis for both successful energy development activities and increased opportunities for application of U.S. technology and industry capability. Specifically, a public forum would be held to review program results to date with industry and develop follow-on programs for detailed project feasibility and project implementation.

Question: How much is included in your FY 1989 budget request for coal export initiative activities? Specifically, how much of the funds in economic and technical analysis is earmarked for this purpose, and how much is included in international program support? What will you do with these funds?

Answer: No funding was requested for coal export initiative activities in the FY 1989 budget request for international program support. However, $280,000 in technical and economic analysis is earmarked for technical evaluation studies, seminars, workshops for technical dissemination and technical support.

Question: If the Department was directed to fund $300,000 from within available funds, in addition to those funds included in the FY 1989 request for the coal export initiative, what would you do and where would you take the money from?

Answer: If the Department was directed to fund $300,000 from within available funds, it would allow FE to continue to identify and evaluate specific candidate countries and technologies which could offer opportunities for expanding the markets for U.S. coal and technologies. This funding level would not permit detailed project feasibility studies or project implementation. The money would be taken from prior year unobligated funds ($225,000 from Surface Coal Gasification and $75,000 from Heat Engines.)

## QUESTIONS SUBMITTED BY SENATOR J. BENNETT JOHNSTON

### Metarie Site Office

Question: The FY 1988 Continuing Resolution directs the Department of Energy to establish a field office of not less than 6 FTEs at the Strategic Petroleum Reserve project office in Louisiana. The Committee informally advised you to have the office operating by April 1988. Has the office been established yet? If not, when do you expect it to be operational?

Answer: This office has not yet been established, however, a formal organization proposal has been prepared and is currently under internal management review. It is expected that this review will be completed shortly, and that the site office will become operational sometime in the fourth quarter of this fiscal year.

Question: What preparatory work has been completed and what is left to do? What is your time table for the items left to be completed?

Answer: While this office has not yet been established, a formal organization proposal has been prepared and is currently under internal management review. As part of the organization proposal, a draft Mission and Functions Statement was prepared, as well as a proposed position list. In addition to the organization proposal, draft position descriptions were also developed. As previously stated, it is expected that the site office will become operational sometime in the fourth quarter of this fiscal year.

Question: It was originally the Committee's intent to relocate existing FTE's to the Louisiana office. Do you intend to relocate existing FTE's? If so, from what office(s) will they be drawn? Please provide me with the names, job titles and job descriptions (both pre and post relocation).

Answer: The FTE's to support the site office are expected to be derived from the existing personnel floor at the Morgantown Energy Technology Center (METC). In addition, administrative support will be provided by the Oak Ridge Operations Office through the Strategic Petroleum Reserve Project Management Office on a reimbursable basis out of the METC Program Direction account. The anticipated positions that will be established for the site office are as follows:

- Petroleum Engineer, GM-15
- Petroleum Engineer, GS-13
- Physical Scientist, GM-14
- Technical Information Specialist, GS-12
- Secretary, GS-5/6
- Clerk Typist, GS-2/3

A decision as to whether to relocate some of these positions from other Fossil Energy locations is still under review. When this decision has been made, we will provide for the record the names, job titles and job descriptions (both pre and post relocation) of those personnel who would be transferred to the site office. In addition, we will provide a list of the positions that we expect to fill through new hires and the expected schedule for filling these vacancies.

Question: Will you hire new FTE's? If so, for what positions? Please explain fully and provide me with a time frame for their hiring.

Answer: The anticipated positions that will be established for the site office are as follows:

- Petroleum Engineer, GM-15
- Petroleum Engineer, GS-13
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Question: Have you drafted a mission statement for the Louisiana Office? If so, please provide me with a copy.

Answer: A proposed mission statement has been prepared for the Metarie Site Office. This mission statement is presently under review by DOE and a formally approved mission statement is expected in the near future. A copy of this mission statement will be provided at that time.

Question: How do you envision the office working in relation to the other DOE offices that are involved in oil and gas issues (e.g., Bartlesville, Morgantown, etc.)? Please provide me with your proposal and justification for the chain of command between these offices (e.g., to whom will each report and why)?

Answer: It is expected that an integrated working relationship will exist between the Bartlesville Project Office (BPO), the Morgantown Energy Technology Center (METC), the Metarie Site Office, the Office of the Deputy Assistant Secretary for Oil, Gas, Shale and Special Technologies, and the Headquarter's Office of Geoscience. All of these offices are expected to report to the Assistant Secretary for Fossil Energy (ASFE). As the Headquarter's Office of Geoscience reports directly to the ASFE, better communication would be facilitated by having the Metarie Site Office also report directly to the ASFE. The BPO and METC, which have additional responsibilities beyond Geoscience activities, would continue to report directly to the ASFE.

Question: How do you foresee the Louisiana office assisting the independents?

Answer: We currently foresee the Louisiana office functioning in the role of coordinator, facilitator and as a technical focal point relative to matters that cross-cut all hydrocarbon research within the Fossil Energy organization. With respect to independent producers in Louisiana, this office is charged with the responsibility of assuring that hydrocarbon research and technology development relevant to independent producers in Louisiana are made available on an expeditious basis. This office will facilitate making this information available through its technology transfer function. In addition, the office will serve as the initial focal point, and interface with other technical professionals within the Fossil Energy organization for not only Louisiana but other states in the southeastern United States. An interface function of particular benefit to the regional independents is the ability of the office to provide a central clearing house for feedback from the small operator which can be translated into DOE funded research projects with direct, near term impact thus preserving the national resource in terms of maintaining production from marginal wells.

## Geoscience

Question: I understand you support the establishment of a major geoscience institute in the oil patch. Please describe your proposal to me. Where will it be located? What will its mission be?

Answer: On February 23, 1988, the Assistant Secretary for Fossil Energy (ASFE) signed a "Statement of Intent" to support the Geoscience Research Institute for Oil and Gas Recovery Research for the purpose of assisting the Department in the development of a comprehensive geoscience and enhanced recovery research and development plan. In so doing, the ASFE committed to fund the Institute's planning effort contingent upon approval of the Institute's proposal currently under review within the FE organization.

Should the Institute's proposal be approved, we intend to fund it utilizing monies provided in Public Law 100-202. As you know, P.L. 100-202 provided $500,000 for oil and gas program development support for expenses of outside experts needed to assist the Department in developing a comprehensive geoscience and enhanced recovery research and development program.

The current proposal, in brief, provides that a national consortium of universities and other state entities with advanced petroleum engineering, geophysics, and geology programs in oil and gas recovery research would develop a nationally-based multidisciplinary but centrally focused geoscience and enhanced recovery research and development program plan aimed at providing an increased understanding of, and the technology required for, improved oil and gas recovery. The Institute's proposal provides for the development of such a program plan for submittal to the Department within six months at an estimated cost of $500,000. The Institute's proposal consists of membership from the following universities and state entities:

University of Alabama
State of Alaska
Colorado School of Mines
State of Illinois
University of Kansas
Louisiana State University
New Mexico Institute of Mining Technology
University of Oklahoma
Stanford University
Texas A&M University
The University of Texas at Austin
University of West Virginia
University of Wyoming

The Institute, as proposed, would be administered by The University of Texas at Austin and housed in existing facilities at the Bureau of Economic Geology located at the University's Balcones Research Center.

The Institute's proposed organization would consist of a Board of Directors with representation from the aforementioned institutions; a Technical Program Committee to assist the Institute in developing its program plan; an Advisory Council consisting of membership from appropriate technical societies and industrial associations to review the program plan and consult and advise the Board of Directors accordingly.

Question: How will it help the independents?

Answer: Since membership in the Institute represents the cognizant state institutions which have the responsibility for maintaining or enhancing production within their respective states and since independent operators constitute 40 percent of United States production, we believe that the program plan developed by the Institute will have as its primary target the independent producers.

Question: To whom will it report?

Answer: For the purpose of developing a program plan, the Institute will be responsible for reporting to the Office of Fossil Energy in the Department.

Question: Do you have any funding estimates? If so, what are they?

Answer: Since the program plan has not yet been developed, there is no basis upon which to estimate any future funding levels.

Question: Will there be any cost-sharing involved? If so, what?

Answer: For the purpose of the proposed planning task, cost-sharing is not applicable. The Institute will be asked to develop a program plan for comprehensive geoscience and enhanced recovery research which would include cost-shared projects.

## Metarie Site Office

Question: How will the Louisiana field office enhance such an institute?

Answer: Since the proposed field office is to be the focus of hydrocarbon research and development programs with concentration on light oil for the southeastern region of the United States, and the fact that Louisiana State University (LSU) is a member of the Board of Directors of the proposed Institute in Texas, we expect that the coordination between the two will provide LSU with the ability to provide meaningful input into the Institute's program plan development and future research projects that may be recommended by the Institute.

Question: What role would Louisiana State University and other Louisiana colleges and universities play in an institute?

Answer: As mentioned previously, Louisiana State University (LSU) is a member of the Board of Directors of the Institute in Texas. LSU's role, as well as other members of the Institute, will be to assist in preparing a comprehensive program plan as previously discussed. Lack of membership on the Board of Directors of the Institute is not intended to preclude other Louisiana universities and colleges from providing input to the Institute.

Question: Do you envision a lead institute? If so, which one and why?

Answer: As currently constituted, the Geoscience Research Institute for Oil and Gas Recovery Research is administered by the University of Texas at Austin and thus could be construed as being the lead institution. The decision that the University of Texas at Austin be the administrator/lead institution was, at the inception of the institute, agreed upon by the other members of the institute. The institute concept is a logical outgrowth of the ERAB recommendation for the establishment of university-based centers of excellence for geoscience research.

## Enhanced Oil Recovery

Question: The FY 1988 Continuing Resolution appropriated $250,000 for a cost-shared $CO_2$ injection project to be conducted by LSU. What is the status of this project? Has the funding been distributed? If not, why not?

Answer: The proposed work to be conducted by LSU on the cost-shared $CO_2$ injection research project was recommended in the Conference Report accompanying the Continuing Appropriation Bill for FY 1988. It has been technically approved by DOE project managers and a proposed contract is in the final stages of the procurement process, with the $250,000 award expected to be made soon.

## QUESTIONS SUBMITTED BY SENATOR QUENTIN N. BURDICK

### Low Rank Coal Research

Question: One of the unique aspects of low rank coal research is that it is a valuable international resource since almost all coals worldwide are of this type. Since the Energy and Mineral Research Center is recognized as the leading research facility for low rank coals, and since there seems to be considerable interest from other countries about the development of these coals, what can the Department of Energy do to encourage these other countries to work with the center?

Answer: DOE currently has 22 active international bilateral and multilateral agreements with other countries involving coal and coal technology. DOE will consider the University of North Dakota Energy and Mineral Research Center for its needs related to low rank coals in our discussions under these agreements.

### International Projects

Question: I have been told that DOE usually refers these international projects to one of three national for-profit laboratories. What can you do to ensure that the Center gets to the top of the DOE referral list?

Answer: The DOE policy is to direct projects to the organizations where the specific program expertise lies. The Department does not maintain a referral list for the National Laboratories. Most of DOE's current research on lignite is carried out by the Energy and Mineral Research Center (EMRC) under contracts from individual program areas. There are no international programs involving low rank coals at present; however, the EMRC will be considered for future needs related to low rank coals.

### Low Rank Coal - Pacific Basin

Question: The recent shipment of Powder River Basin coal to the Taiwan Power Company marks a milestone in low rank coal development in the international arena. For the first time, low rank coal is receiving serious consideration for export markets. This could be very beneficial to the western coal industry as well as U.S. trade balance. What plans does DOE have to assist with future efforts in this area?

Answer: DOE currently has several initiatives involving international coal trade which include potential opportunities in the Pacific basin. The Western Coal Transportation Association and the Western Coal Exporters Council have been invited to briefings on these initiatives and we expect future cooperation from these industry associations.

### Low Rank Coals

Question: Low-rank coals are the logical candidate for an acceptable coal-derived fuel for diesel engines. The high reactivity of the char leads to rapid burnout, therefore acceptable performance. Does DOE plan to emphasize these fuels in future DOE diesel work?

Answer: DOE does plan to emphasize the use of low rank coals in future diesel engine research. There are projects in the Coproducts Program which are expected to consider use of char and char slurries as a fuel for Heat Engines as the projects develop. There is also research work being carried out at the University of North Dakota Energy and Mineral Research Center (UNDEMRC) to expand the data base on fundamental reactions of low rank coal and chars in pressurized combustion systems such as those found in Heat Engine applications.

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Coal Preparation

Question: You have requested an increase of 15 percent ($2,346,000 in FY 1988 and $2,715,000 in FY 1989) in Coal Preparation to expand the in-house research at laboratory scale to investigate and evaluate advanced physical and chemical coal cleaning concepts. This work is one of the few projects that has been included in the budget every year. Can you explain why this research is promising and what you see in the research that led you to request a 15 percent increase in FY 1989?

Answer: Coal Preparation is likely to be an element of most new energy systems of the future. It can be used for pollution control from existing sources, to meet performance standards for new sources, to produce super clean fuels for non-utility applications and in combination with other pollution control devices, such as coal water slurry techniques, advanced diesels and gas turbines, pressurized fluidized bed combustors, etc., for a wide variety of applications to improve the cost effectiveness of these systems.

Further, three advanced physical coal cleaning concepts, i.e., selective agglomeration, true heavy liquid cycloning and microbubble flotation, are considered promising candidate technologies by the early 1990's. The increased funding level for the PETC in-house effort is chiefly to support research on these three technologies. This increased effort is focused primarily on particle surface science which is the key to all three technology areas.

### Flue Gas Cleanup

Question: In FY 1988, $281,000 was provided to continue advanced research on $NO_x$ control that was initiated in FY 1987. You have requested an increase to $1,164,000 in FY 1989. What did you find during the initial phase of this research to merit such a large increase?

Answer: Greater emphasis is being placed on $NO_x$ control because of the potential roles $NO_x$ plays in acid rain and photochemical smog formation. Coal-fired boilers are responsible for approximately 25 percent of total $NO_x$ emissions. Conventional combustion modification technology provides a cost effective approach but limited $NO_x$ control capability. Selective catalytic reduction (SCR) with ammonia is highly effective but at an estimated cost that approaches $SO_2$ scrubbers. Urea injection techniques have demonstrated $NO_x$ control levels nearly equivalent to SCR at half the costs in recent West German tests. The limited research conducted to date indicates that techniques such as reburning and electrocatalytic decomposition have promise for highly effective $NO_x$ control. With the additional funding in FY 1989, the most promising approaches will be scaled up to the proof-of-concept level.

Question: Where do you plan to take this research?

Answer: One of the key objectives will be to demonstrate the feasibility of utilizing coal as a reburning fuel and provide the required technology base for either direct commercialization or future participation in the Clean Coal Technology Program.

Glo-Klen

Question: No funds have been requested for the Glo-Klen boiler in FY 1989 (pg. 29). Has industry picked up on this effort?

Answer: DOE sponsored small scale testing of the Glo-Klen catalyst in FY 1986 at Brookhaven National Laboratory. The results of this work did not show any reason to believe that Glo-Klen could be as useful in controlling $SO_2$ emissions as was claimed. Jefco Laboratories' response to these tests was that their experience showed that it could take up to two weeks of boiler conditioning before Glo-Klen's beneficial effects could be realized. Therefore, it was necessary to run tests in a full scale boiler. Congress appropriated $1.1 million in FY 1987 to conduct such tests. Jefco Laboratories submitted a proposal to conduct tests at a 53 MWe coal-fired boiler located at Inland Steel's Chicago, Indiana, works. Inland Steel later decided to withdraw from the project and Jefco withdrew their proposal in July 1987. As of March 1988, Jefco has still not been successful in securing an alternate host site. Industry has not picked up on this effort to our knowledge.

Question: Has DOE done all that is necessary?

Answer: DOE believes that it has done all that is necessary in attempting to get this project off the ground and has now terminated negotiations with Jefco.

Calderon

Question: In FY 1987, $4.9 million was provided to initiate a feasibility demonstration of Calderon hot gas regenerative subsystem. This work is ongoing in FY 1988 with carryover funds but no funds have been requested in FY 1989. Has this demonstration met your expectations?

Answer: The Calderon project was initiated by DOE in FY 1987 in response to a Congressionally directed action. The industrial participant and its subcontractors have conducted an economic assessment, preliminary design and initiated final design for the project. Within the last two months, Calderon obtained the services of Stearns & Rogers, who will finish the design work and manage the construction of the project. Construction is expected to begin in June of this year. Only after construction is completed and a reasonable period of operation will DOE be able to assess the claimed advantages of the Calderon process.

Question: Does this project qualify under the Clean Coal Technology Program?

Answer: If proposed under DOE's Innovative Clean Coal Technology (ICCT) PON, this project would be eligible to receive funding if it meets the qualification and evaluation criteria identified in the PON, and is selected.

Question: How much of an advantage to the Clean Coal program was the process given with the funds provided in FY 1987?

Answer: Government funding has provided no more of an advantage to the Calderon project than it has to a wide variety of other projects funded under DOE's coal research program.

## Advanced Research and Technology Development

Question: The Advanced Research and Technology Development program (AR&TD), is directed toward the scientific and technical areas that underlie the development of all fossil energy technologies. In FY 1988, $25 million was provided for this program and you are requesting a decrease to $21 million in FY 1989 (-16 percent). Do you no longer feel that this program drives all fossil technologies? If so, is $21 million an appropriate amount for this program?

Answer: We continue to recognize the critical long term importance of maintaining a robust basic science effort in Fossil Energy. Overall budget concerns have caused reductions in many areas of the Fossil Energy R&D budget. While the AR&TD request is reduced somewhat, reflecting the reduced levels of the other programs, AR&TD holds a significantly more prominent place in the FY 1989 request than it does in the FY 1988 budget. (AR&TD is 21 percent of the coal program in the FY 1989 request, vs. 11 percent in FY 1988). Given the fiscal constraints on the Fossil Energy budget as a whole, the $21 million request is certainly appropriate.

Question: Are the areas you are reducing less important to fossil technologies or simply work that has been completed?

Answer: Some work has been completed; however, most of the reductions are budget driven and result in a lower level of effort or stretch out of research.

## Materials

Question: Of the $3.5 million decrease in AR&TD in FY 1989, $1.4 million is in the Materials program where you are proposing to slow-down research on advanced steam cycle alloys, mechanisms of erosion and corrosion, ceramic composites, and welding techniques of advanced aluminides. These are all materials necessary in the liquefaction and gasification processes. Current technology is faulty with some of the materials lasting only 100 hours. Shouldn't we be doing more work in this area rather than less?

Answer: The major research areas that are currently addressed in the Materials program have potential applications in heat engines, fuel cells, and other areas of the fossil energy program as well as in liquefaction and gasification. It is also true that materials problems are frequently limiting in many of the systems that are currently under development in Fossil Energy.

The $5.1 million level of funding that is requested for Materials in FY 1989 is consistent with the overall level of funding and activities within FE for FY 1989. At this level, a balanced set of activities in all of the major areas can be maintained, although some projects within those areas may be adjusted to lower rates of activity and longer schedules. No critical project will be deleted, however.

We are continuing to examine the materials requirement of FE and coordinate with the line programs to identify the highest priority research needs. As an example, we are currently examining ways to provide materials support to the Clean Coal Technology Program.

### Bioprocessing of Coal

Question: Recent news reports indicate that the Idaho National Engineering Laboratory has been somewhat successful in developing a technique to process phosphate ore more cheaply than electricity.

In FY 1989 you have requested a reduction from the FY 1988 level of $1.0 million to $213,000 for work at INEL on the bioprocessing of coal in the AR&TD program. You have also requested a decrease in research on biological approaches to coal liquefaction, which I believe is conducted at the Pittsburgh Energy Technology Center and the Oak Ridge National Laboratory. Is the work INEL has done on ore bodies compatible with coal? If yes, then why are you proposing a large decrease? Shouldn't we be scaling up this effort? If not, why not and have you done all the research necessary to know?

Answer: The work done at INEL on ore bodies has application to bioprocessing of coal, particularly to microbial desulfurization of coal.

Two reasons can be cited for the decrease. First of all, it is necessary to decrease many technically interesting programs in an effort to reduce the budget deficit. Secondly, our budget request already includes $2,133,000 in other activities for research on coal desulfurization, gasification and liquefaction using biotechnology. Thus, although the fundamental research is being reduced somewhat in recognition of the deficit, we believe that a strong overall research effort in bioprocessing remains.

### University Coal Research

Question: In FY 1989 you have requested $3.8 million for 22 new grants at universities for research on the ongoing topics of coal science. This is a reduction from the FY 1988 level of $5.4 million for 30 grants. Are the grants awarded on a competitive basis?

Answer: Yes. Solicitations are held on an annual basis. Each proposal is peer reviewed by a DOE employee, two university professors and an industry representative. The best proposals are selected for award according to overall merit, anticipated objectives to be achieved, facilities available, and the qualifications of the principal investigators. Grants are limited in dollar value to increase the opportunities for award.

Question: How is this research coordinated with industry?

Answer: Though this is not an industrial-driven program, there is industry involvement. The solicitation encourages universities to establish collaborative ties with industry in the topics on which they propose. The annual contractors meeting is open to all who wish to attend. Additionally, there are extensive publications as a result of the work performed on these grants.

### University/National Laboratory Cooperative Program

Question: You have requested $424,000 in FY 1989 to initiate one joint project involving the collaboration of a national laboratory with universities in a particular area. The justification does not indicate the University or the National laboratory that are to be involved. You do have some general ideas about the type of research you are interested in. Can you elaborate on your plans for this project?

Answer: Once we receive positive action on the program from Congress steps would be taken to initiate the program. A meeting will be held with all National Laboratories and interested universities. This meeting will discuss both substantive and procedural aspects of the program. As soon as funds were appropriated, we would formally solicit proposals from the National Laboratories, subject them to peer review and award the first cooperative project.

Question: What sort of input will the industry have in this project?

Answer: While the thrust of the program is cooperative efforts between National Laboratories and universities, the concept of industry participation would certainly receive careful consideration.

Question: Will the selection process focus on the research you want conducted or the lab or University who needs help?

Answer: The combination of universities and national laboratories selected will be chosen through a field work proposal by the Office of Fossil Energy on the basis of the proposals submitted and peer review evaluation. The successful proposal must identify innovative research that draws on the particular strengths of all partners (the unique and specialized facilities of the lab/the pioneering theories and research of the universities) and address a technical area promising major breakthroughs in technology important to Fossil Energy's mission.

The national labs have expressed enthusiasm about proceeding in this manner and most have offered to host the first meeting.

### Indirect Liquefaction

Question: In FY 1988, $1.8 million was provided for the continued operation and related research on liquid phase methanol at the La Porte, Texas, facility. No funds are requested for this project in FY 1989. To date, slightly above $29 million has been put into this project with just over $4.0 million from private sources. Has this project been successful?

Answer: The objective of the Liquid Phase Methanol project is to develop a process with the potential to convert coal-derived synthesis gas to methanol more efficiently in a liquid medium. Since the program was initiated, the PDU in LaPorte, Texas, has been successfully operated under different conditions over a period of years in combination with a laboratory research program. Air Products and Chemicals, Inc. is the prime contractor and industrial participants include Chem Systems, Inc., the Electric Power Research Institute, and Fluor Engineers.

Under the current contract, FY 1988 and prior year funding (FY 1986 and FY 1987) are being utilized to simplify the LaPorte PDU and expand the data base with different catalyst loadings and system configurations. The current contract which extends through FY 1989 is fully funded.

The project has been successful. At the completion of the currently scheduled PDU operation and supporting research in FY 1989, a significant quantity of data will be available for the once-through methanol process, which promises to reduce the cost of producing methanol from coal. With this technology data base, industry can then make investment decisions regarding possible additional investigation and subsequent scale-up development.

Question: Would the process qualify under the Clean Coal II solicitation? If yes, is that why you aren't proposing additional funds in FY 1989?

Answer: The current Liquid Phase Methanol contract to operate a process development unit at LaPorte, Texas, extends through FY 1989 and is fully funded with FY 1988 and prior year funding. This is the reason that no additional funds were requested in FY 1989.

If proposed and if the proposer can show that the technology is capable of retrofitting or repowering existing coal-fired facilities and if it meets the other qualification and evaluation criteria specified in the PON, the project would qualify under CCT II. The liquid phase methanol technology is a part of a proposal submitted by the Tennessee Valley Authority under CCT-1.

## Direct Liquefaction

Question: In FY 1987 and FY 1988 $15 million was provided to the coal liquefaction research facility in Wilsonville, Alabama. No funds are requested for this project in FY 1989. Is the work on this project complete?

Answer: The research conducted at the Wilsonville facility has been successful in demonstrating substantial improvement in processing steps to reduce capital and operating costs. We recently held discussions with EPRI and Southern Company Services representatives regarding future activities at the Wilsonville facility. We are not aware of any specific plans by EPRI or Southern Company Services for the facility in FY 1989. However, we would be supportive of any effort by private sector groups who wish to take responsibility in this area. The Administration's position is that the selection and ultimate commercialization of synfuels technology is the responsibility of the private sector.

Question: Would the process qualify under the Clean Coal II solicitation? If yes, is that why you aren't proposing additional funds in FY 1989?

Answer: The process would qualify under CCT II only if it can show that the technology is capable of retrofitting or repowering existing coal-fired facilities and if it meets all of the qualification and evaluation criteria specified in the PON.

The basic reason for not requesting funds in FY 1989 is that further continuation of this activity was considered lower priority coupled with our budgetary constraints. The project has succeeded in demonstrating substantial reductions in projected capital and operating costs, bringing the technology to the point where it is the responsibility of the private sector to decide on its ultimate commercialization. Fossil Energy is conducting discussions with EPRI, Southern Company Services, and other potential sponsors which could lead to future private support for Wilsonville.

## Phosphoric Acid Fuel Cells

Question: The Department of Energy recently completed a report to the Appropriations Committee on Phosphoric Acid Fuel Cells Technology Development in the Electric Utility Sector. The report concludes that the "prognosis for the near-term commercialization of multimegawatt phosphoric acid fuel cells electric utility systems in the U.S. is not very promising--given the present utility market climate and the cost of the units." What additional work needs to be done to decrease the cost of the units?

Answer: The primary R&D that needs to be done in phosphoric acid fuel cells is the development of the "Configuration B" technology. As indicated in the Department's April 1988 Report to the Congress, the development of this technology is projected to decrease the cost of the units while increasing the performance. The contract for that work, with International Fuel Cells (IFC), has been awarded and is fully funded with currently available funds.

Question: What role should the government have in the effort?

Answer: The Department believes that the proper role for the government is to support industry in basic technology development.

Question: The justification indicates that in FY 1988, the Department will complete the testing of 200 kW water-cooled on-site system to verify endurance and correct problems observed in testing. The justification also indicates that the government sponsored phase of module development of "Configuration B" cell including completion of performance test of the second short stack of this design will be complete in FY 1988. Does the industry agree that this work will be complete in FY 1988?

Answer: The endurance testing of the 200 kW water-cooled on-site system (VTA) is underway. To date, 1,550 test hours have been completed. A total of up to 5,000 hours of testing is planned. Technical problems with testing the VTA have delayed completion of the endurance test which is now projected in November 1988. The contract for this work is fully funded with currently available funds.

The 11 MW, "Configuration B" technology development contract with IFC was negotiated and signed in April 1988. With an April 1988 start and a negotiated four year period of performance, it is now projected that the testing of the first two short stacks of this design will be completed in FY 1990. The contract is fully funded with currently available funds.

This is a factual description of the present project status. We therefore assume that industry would be in agreement.

Question: Do you anticipate any carryover balance into FY 1989 for the "Configuration B" work? If yes, how long will it last?

Answer: It is anticipated that obligated but uncosted funds will be carried over into FY 1989. The "Configuration B" contract was signed in April 1988. This 48 month contract is fully funded through completion of work in April 1992. Uncosted carryover at the end of FY 1988 is estimated to be approximately $7 million.

Question: In response to a question at a Senate Energy Committee hearing, you indicated that the International Fuel Cells (IFC) 200 kW phosphoric acid on-site fuel cell system is the closest to commercialization with IFC receiving contracts and/or commitments for over 60 of the 200 kW on-site systems. Would the proposed reduction impact any of these commitments? If not, why not?

Answer: The commercialization activities for the 200 kW IFC fuel cell power plants are conducted entirely by the private sector. Since performance and endurance verification tests will be completed with FY 1988 funds, we do not anticipate any impact of the FY 1989 budget on these activities.

Question: Do you feel additional testing would reduce the unit costs?

Answer: As with many market entry products, a balance is sought between the costs of additional testing and the benefits of those additional tests. Testing by itself will not reduce unit cost. The Department believes that such marketing issues should be resolved by the private sector. We fully expect that unit costs will be reduced with further private sector sponsored product improvements, testing and quantity production.

Question: If industry feels additional testing should be done, please consult with industry and provide for the record the cost of the units if testing were halted at the end of FY 1988 or funded as the industry proposes at 100 unit and 200 unit increments.

Answer: As requested, the Department has consulted with industry, i.e., International Fuel Cells (IFC), the developer of the 200 kW system, and received the viewpoint that additional 200 kW Phosphoric Acid Fuel Cell (PAFC) system testing and technology development would be very beneficial and should be done. It is not clear from the question as to whether the industry is suggesting that the Federal Government subsidize the purchase of fuel cells in 100 and 200 unit increments. If that is the case, this scenario would provide unit cost reductions by creating, in essence, a large Federal purchase of the units. IFC has not provided the exact cost reductions that would be attributable to each of the scenarios postulated in the question, but expressed the view that the cost reductions would be substantial. The Department regards marketing as the responsibility of the private sector.

IFC also stated that it is in the process of soliciting commitments for production units to be delivered starting in 1991 at a selling price which is roughly twice the projected competitive installed cost. IFC is soliciting a minimal order of 100 units and is projecting a 1993 selling price for subsequent units that falls within the upper limit of their projected competitive installed cost. IFC's marketing progress with on-site systems indicates that they are capable of assuming responsibility for opening the on-site market.

The commercialization activities for the 200 kW IFC fuel cell power plants have been conducted entirely by the private sector. Federally funded 200 kW unit performance and endurance testing will be completed by the end of CY 1988 with currently available funds. The Department has not been a direct participant in IFC's commercial sales program. Although we fully expect that unit costs can be reduced with further technology development, unit testing, system deployment (or field testing) and increased volume in production, the Department's view is that the 200 kW PAFC technology development has reached the stage that further development, demonstration, and commercialization should and can be done by the private sector.

Question: Your justification indicates that in FY 1988 you will continue work on electric utility air-cooled 32 kW stacks and initiate design of 375 kW modules.

Since no funds have been requested for this project in FY 1989, should I assume that you will complete this work in FY 1988? If not, has industry indicated a willingness to pick up this effort?

Answer: The principal "building blocks" of the Westinghouse air-cooled, 7.5 MW PAFC system are three repeating elements on a progressively increasing scale, specifically: 32 kW elements, 100 kW stacks (three 32 kW elements), and 375 kW modules (four 100 kW stacks). Westinghouse has successfully developed and tested their basic repeating unit (the 32 kW element). They have also successfully integrated the 32 kW elements into a 100 kW stack and operated the stack. Endurance testing of a short, 10-cell stack is underway and is planned to be completed in FY 1988 (13,318 test hours have been completed to date out of a planned 15,000 hours). Design of the 375 kW module, will be initiated by June 1988.

While the design of the 375 kW module will not be completed in FY 1988, the Department believes this technology has progressed to a state of development where the remainder of the development, and eventually commercialization, can be done by the private sector, although industry has not expressed a willingness to do so.

## Molten Carbonate Systems

Question: Do you anticipate any funds for molten carbonate fuel cells to carryover into FY 1989?

Answer: We anticipate that there will be no unobligated molten carbonate fuel cell funds carried over into FY 1989. However, of the funds obligated, it is estimated that by the end of FY 1988, approximately $5 million to $7 million will be uncosted by the three contractors working in this area (IFC, IGT, and ERC), and these funds will be available to the contractors to spend in FY 1989.

## Heat Engines

Question: In FY 1988, $18 million was provided for the heat engine program. You have requested only $9 million in FY 1989 and have proposed to cut in half the number of contractors in gas turbine engines and diesel engines. Will the program goals be extended if the number of contractors is reduced?

Answer: The Heat Engines goals will remain the same with proof-of-concept gas turbine projects to be completed in late CY 1991 and diesel engine projects in late CY 1993 if current schedules do not slip.

Question: Is this a budgetary decision or are there some contractors who have simply out-distanced the efforts of others?

Answer: This is a budgetary decision, although it is usual in programs of this type to progressively narrow the field. Success of even one contractor lowers the risk for other privately funded ventures that follow. At this point, in the Coal-Fueled Diesel Engine Program, contractor progress is approximately equal. In the Coal-Fueled Gas Turbine Program, some of the contractors are doing a more effective job of meeting objectives than others.

Question: What was your request to OMB?

Answer: Our request to OMB for the Heat Engines Program was $9 million, the same as the President's request.

## Great Plains Sale

Question: The Department of Energy is in the process of offering the Great Plains Coal Gasification plant for sale. Late last year, Shearson Lehman Brothers completed a "descriptive memorandum" which describes the facility in great detail. Indications of interest in the Great Plains facility were to be submitted no later than November 20, 1987. From these indications, DOE will invite one or more of the prospective purchasers to participate in a more extensive process. Where do we stand now with respect to the sale?

Answer: Firm offers have been submitted by eight prospective buyers. Shearson Lehman Hutton, our investment banker, is in the process of an expeditious review of the offers.

Question: What are your plans to proceed with the sale?

Answer: Our plans for divestiture are based on satisfactory achievement of the goals of (1) receiving fair value for the facility and (2) encouraging long-term operation of the plant. Based on our investment banker's review of the offers and our own evaluation, we intend to select several bidders with which to conduct multiple, simultaneous negotiations. Upon successful completion of the negotiations and selection of the most attractive offer for the fulfillment of our divestiture objectives, the Department will submit to the Congress 30 days before the asset purchase agreement is effective, the report required by the Budget Reconciliation Act of 1987. The report will include a detailed description of the terms and conditions of the sale, including, but not limited to, the purchase price, the name of the prospective purchaser, the basis for agreeing to the sale, and a statement of commitment signed by an authorized individual of the purchaser for the continued long-term operation of the facility at a rate and for a period determined appropriate and reasonable.

## Underground Coal Gasification

Question: You are proposing to complete a groundwater restoration and evaluation of a three-year cost-shared field test with prior year funds. This project has been carried out by Lawrence Livermore National Laboratory and Stearns-Catalytic. Can you briefly describe this project. What is the amount of the carryover balance?

Answer: The underground coal gasification (UCG) test, called "Rocky Mountain 1," was carried out jointly by the Department of Energy and an industrial consortium headed by the Gas Research Institute at a test site near Hanna, Wyoming. UCG involves igniting an underground coal seam and regulating the amount of steam and either air or oxygen that is injected from the surface. By carefully controlling the oxygen that reaches the "burn zone," the coal is changed into a combustible gas rather than burning completely. The gas, when piped to the surface and cleaned, can be used to generate on-site power, or as a feedstock for making higher grade fuels or chemicals. The test was a success, and ran for 102 days, finishing on February 26, 1988.

Now that the test is completed, the researchers have turned their attention to groundwater restoration and evaluation. To do this, researchers will maintain the pressure inside the burned out underground cavity at or below the pressure exerted by surrounding groundwater. This is intended to trap any contaminated water in the cavity. When the water completely fills the cavity, it is pumped to the surface and purified before disposal.

The contamination control procedures, including restoration of the groundwater, are projected to last from 60 to 200 days and were funded as a part of the project. Within this uncertainty, it is now estimated that there will be no carryover.

## Magnetohydrodynamics

Question: With partial funds provided in FY 1988, the Department initiated a five-year, proof-of-concept program in MHD. This proof-of-concept program has an estimated cost of $172 million, and the private sector feels that it is the next step before a retrofit demonstration. To date, how much has the government spent on MHD?

Answer: The Federal Government has spent approximately $600 million to date to fund MHD R&D.

Question: Does the private sector feel that the Federal government should fund a retrofit demonstration?

Answer: Proposals for retrofit demonstrations evolved in the late 1970s from concepts developed by various firms engaged in MHD R&D and several electric power companies. During the period 1983-1984, the consensus view emerged at various public meetings that, following proof-of-concept testing, a cost-shared retrofit demonstration represents the next logical step in the development of MHD technology.

In 1985 both the MHD Development Corporation and Westinghouse expressed interest in sharing with the government the cost of a retrofit. More recently, the MHD Development Corporation has expressed interest in a cost-shared retrofit demonstration following the successful completion of the proof-of-concept testing program.

An MHD retrofit project would be eligible to compete under the Clean Coal Technology Program (if it meets the qualification and evaluation criteria identified in the solicitation), which could be a source of project funding for up to 50 percent of the cost of the project.

Question: What is the cost of a retrofit demonstration?

Answer: Costs for a retrofit demonstration would vary with the size of the facility and the type of demonstration. The cost of an MHD retrofit is expected to be in the range of $200 million to $400 million.

## Advanced Process Technology

Question: In FY 1988, $2.0 million was provided to continue research on geoscience and extraction technology and development of advanced instrumentation to measure reservoir characteristics. You have requested a decrease to $1.0 million in FY 1989. Why the reduction? Has this work been unsuccessful?

Answer: In these times of budget deficits, fiscal constraint in budget requests is a major concern. A number of projects in these areas have been initiated and a Program Research and Development Announcement (PRDA) is in the process of being issued. The $1 million request is sufficient to keep the most successful and highest priority of these projects funded in FY 1989.

The work that was funded with the FY 1988 budget is not sufficiently advanced to determine "success"; however, significant progress is being made in all the work funded.

## Enhanced Oil Recovery

Question: The only major area you have requested an increase for FY 1989 is in the Enhanced Oil Recovery program ($16.5 million in FY 1988 vs. $17.0 million in FY 1989). This increase is a shift from your FY 1988 request of $9.3 million. Was there something in particular either inside or outside of the program that led to you to increase your emphasis?

Answer: A number of pertinent studies dealing directly or indirectly with petroleum recovery research needs were completed in 1987, such as Energy Security (a DOE report to the President) and Factors Affecting U.S. Oil and Gas Outlook (an NPC study). Also, Fossil Energy's staff study on Enhanced Oil Recovery (EOR) initiatives was completed in 1987, based on extensive canvassing of the oil industry and institutions within the states. Accordingly, despite overall budget constraints, based upon the information presented in these reports/studies, the Department believes that it is important to increase the EOR effort substantially above the $9.3 million level requested for FY 1988.

Question: The majority of this increase is in the area of light oil research where you have requested an increase of $3.1 million (+32 percent). The majority of this increase is to continue advanced geologic analysis of reservoirs and expand geoscience quantification of heterogeneities. How does this research relate to the research in advanced process technology, if at all?

Answer: Geoscience research funded in the AER subprogram of APT is crosscutting, generic, basic studies of the physical, chemical, geological, biological, and thermodynamic mechanisms pertinent to finding and recovering light oil, heavy oil, gas, tar sand, oil shale and underground coal gasification liquids. The EOR geoscience research is more oriented toward the development of knowledge necessary for the application of a specific process to a specific type of reservoir. The AER geoscience research provides the basic data on which the EOR applied geoscience research builds.

Question: Would your programs benefit from a specific line item for geosciences?

Answer: No. Geoscience is an important aspect of the program, but it should be addressed in the context of developing or improving oil and gas recovery strategies.

Question: What is the status of the $1 million provided in the FY 1988 Continuing Resolution for light and heavy oil programs at INEL?

Answer: A set of EOR projects, in the general area of "reservoir characterization in cooperation with states", has been developed by INEL in concert with our Bartlesville Project Office for the $1 million provided in FY 1988. Our plans include work in the area of reservoir characterization, development of models to predict in situ gellation, development of multiphase fluid flow techniques for heterogeneous reservoirs and field studies of novel light oil recovery concepts. Planned funding for this project is split between heavy oil ($600,000) and light oil ($400,000).

## Cooperative R&D Ventures

Question: You have requested an increase of $9.0 million for Cooperative R&D ventures for FY 1989. This request has been made in previous years and rejected by Congress. What additional work have you done in formulating this request that you didn't do in previous years?

Answer: During FY 1987 the Office of Fossil Energy held a series of four public meetings at which private sector participation was solicited to better define the structure required for an effective Cooperative R&D Ventures Program and assess private sector interest. These meetings elicited responses from over 400 interested parties and resulted in the informal submission of 21 informational proposals.

The program requested in the FY 1989 budget was developed on the basis of an analysis of this public response. Under the proposed program, the Department would join with U.S. industry and other non-federal entities in cost-shared cooperative R&D ventures focusing on pre-commercial stages of fossil energy technology development. Within broadly defined guidelines, the content and direction of the venture would be determined by the private sector, with the Department having the role of a minority funding partner. The Department's cost share would be limited to a maximum of 49 percent and the Department would proportionately share the revenues of ventures that were eventually financially successful.

## Clean Coal

Question: In the FY 1988 Continuing Resolution, Congress provided $575,000,000 for the Clean Coal Technology Program. These funds are designed to be used for a second round of solicitations which are not new, stand alone applications. The Department's solicitation opened February 22, 1988, and closes May 23, 1988.

In the CCT-1 solicitation, nearly 140 responses totaling over $5.0 billion were received. While cost sharing agreements are not complete for all projects, the negotiations for the seven projects selected provided for a 65 percent private cost share, well above the required 50 percent cost share. What sort of a response do you anticipate from the second solicitation?

Answer: Although it is extremely difficult to predict the response at this time, there are at least two indicators that cause us to anticipate a large response. These include:

- o The large number of Statements of Interest (i.e., 139) received in response to DOE's informational request.
- o The large attendance at the March 15, 1988, preproposal conference (i.e., almost 300 people).

It should be noted that if we receive only 20 good proposals representing a diversity of technologies, we believe the available funds for this round could be totally utilized.

Question: Do you anticipate that the cost sharing agreements will exceed the 65 percent rate achieved in the last solicitation?

Answer: Experience gained in the first solicitation has shown that the cost sharing ratio proposed is dependent upon a wide range of factors such as total cost of project, technology, application, type of participants, etc. These factors make it impossible to predict what the average cost share will be for the projects selected in the next solicitation. However, the data received in the informational solicitation that preceeded the recent PON does cause us to expect a cost share ratio very nearly the same in the next series of projects selected (i.e., approximately 65 percent industrial, 35 percent federal funds).

Question: How will retrofit technologies selected in CCT-2 differ from the retrofit technologies selected in CCT-1?

Answer: The projects selected in the second CCT solicitation can be expected to be different in at least three significant aspects:

- o First, they can represent totally new technologies which were not selected in the first solicitation (e.g., coal preparation).

- o Second, they can represent similar technologies as those selected in CCT-1 but utilizing different feedstocks (e.g., coal types), unit operations (e.g., gasifier types), and operating conditions that may affect economics, environmental performance and system efficiencies.
- o Third, they can represent similar technologies demonstrated in different market applications.

Question: What is the outlay rate you anticipate with these funds?

Answer: The following chart displays the outlays associated with the first and second solicitations.

Clean Coal Technology

(Dollars in Millions)

| Program | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Future Years | Total c/ |
|---|---|---|---|---|---|---|---|---|---|---|
| CCT-1 a/ | | | | | | | | | | |
| BA | $99.4 | $149.1 | $149.1 | --- | --- | --- | --- | --- | --- | $397.6 |
| BO | .3 | 6.9 | 49.8 | 139.2 | 98.0 | 76.2 | 21.4 | 5.8 | --- | 397.6 |
| CCT-2 | | | | | | | | | | |
| Approp. BA | --- | --- | 50.0 | 525.0 | --- | --- | --- | --- | --- | 575.0 |
| BO | --- | --- | 5.6 | 23.5 | 176.9 | 280.5 | 55.7 | 32.8 | --- | 575.0 |
| CCT-2 | | | | | | | | | | |
| Requested BA | --- | --- | --- | --- | 575.0 | 600.0 | 600.0 | --- | --- | 1,775.0 |
| BO | --- | --- | --- | --- | 49.4 | 130.3 | 473.7 | 488.9 | 632.7 | 1,775.0 |
| Totals | | | | | | | | | | |
| BA b/ | $99.4 | $149.1 | $199.1 | $525.0 | $575.0 | $600.0 | $600.0 | --- | --- | 2,747.6 |
| BO | .3 | 6.9 | 55.4 | 162.7 | 324.3 | 487.0 | 550.8 | 527.5 | 632.7 | 2,747.6 |

a/ Reflects general reduction of .6 percent against the total appropriation of $400 million netting to $397.6 million.

b/ All estimates for BO in FY 1988 through FY 1993 are OMB/CBO directed levels, which were not split by solicitation. The Office of Fossil Energy split the outlays by solicitation.

c/ None of the above estimates reflects reductions for the Small Business Innovative Research Program (SBIR).

NOTE: Dollars in FY 1986 and FY 1987 are actuals.

Question: Is the rate coordinated with the Congressional Budget Office and the Office of Management and Budget?

Answer: Yes, as footnoted on the chart all estimates for budget outlays in the Clean Coal Technology Program were directed by the Congressional Budget Office (CBO) and the Office of Management and Budget (OMB). These levels were not broken by solicitation, therefore the Department made that determination within the overall levels directed by the CBO and OMB.

Question: Please provide for the record any additional detail concerning the anticipated outlay rates that you feel is necessary.

Answer: The Congressional Budget Office (CBO) and the Office of Management and Budget (OMB) projections were calculated based upon a $2.5 billion program assuming an advanced appropriation in FY 1989 for the remainder of the program. Therefore, the CBO/OMB outlay projections were made prior to evaluation, selection and award of the projects being pursued in the second solicitation. As the second solicitation progresses, the Department in conjunction with CBO/OMB will need to readjust the outlay projections to reflect the estimates of the individual projects.

Question: The President has accepted the recommendations of his Special Task Forck on Regulatory Relief that were designed to encourage the use of promising new clean coal technologies by the utilities and others. Please elaborate on these recommendations and how the Administration intends to implement them.

Answer: On January 23, 1988, the White House announced that the President had accepted recommendations of his Task Force on Regulatory Relief. On March 14, 1988, the Vice President, who chairs the Task Force, offered somewhat greater detail regarding the initiatives in a letter to Secretary Herrington which addressed DOE's assignments deriving from the Task Force. A copy of the Vice President's letter follows. It describes three sets of actions:

- o DOE programs
- o EPA programs
- o FERC programs

I would prefer to defer detailed remarks regarding the EPA programs to the appropriate officials at EPA. Let me simply say that the EPA initiatives are essentially aimed at exploiting existing authorities which might provide greater regulatory flexibility to innovative technologies. Such flexibilities include greater use of the "bubble" concept, and special permitting provisions which would apply to initial demonstration units.

With respect to the DOE programs, we are implementing those initiatives at this time. They include giving consideration, in the selection of projects soliciting Federal co-funding under the ICCTP, to technologies with superior cost-effectiveness, and to projects in states which provide essentially the same electricity rate treatment to ICCTP's that the state provides to pollution control technologies. Our PON noted that cost-effectiveness is one of the criteria to be used in the selection of projects for funding, and that the equivalent rate treatment criterion will be considered if two proposals are roughly equivalent on other grounds.

DOE is also very much involved with the FERC initiative. FERC was charged with promulgating a regulation which would provide rate incentives for ICCT's subject to FERC's jurisdiction (wholesale power sales). It is DOE's task to propose that regulation. The proposal is expected to offer electricity rate incentives of the following types:

- o More rapid amortization of capital costs than the traditional 30-year period (perhaps 10-20 years).

- o Allowance of full CWIP (Construction Work in Progress) into the utility's rate base when the expenditure occurs, rather than the current practice of allowing one-half CWIP and capitalizing interest charges on the remainder of the investment.

- Providing an incentive rate of return for exceptional performance (and providing penalties for substandard performance). Performance might include the cost of the technology, its reliability, and its pollution control efficiency.

Developing such a regulation requires a great deal of effort and coordination with FERC. Nevertheless, our schedule for proposal is July 1 of this year.

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THE VICE PRESIDENT
WASHINGTON

March 14, 1988

The Honorable John S. Herrington
Secretary of Energy
U. S. Department of Energy
1000 Independence Avenue, Southwest
Washington, D. C. 20585

Dear John:

On January 23, 1988, the White House announced that the President has accepted the recommendations of the Task Force on Regulatory Relief on ways to promote the development of innovative control technologies to limit powerplant emissions. (See enclosed list of recommendations.)

The Department of Energy (DOE) has already adopted, in its soliciation of the Innovative Clean Coal Technologies Program, the Task Force recommendation that DOE should consider giving preference to projects located in States offering regulatory incentives for such technologies. In addition, DOE should also take the lead in carrying out the Task Force recommendation that the Federal Energy Regulatory Commission adopt certain regulatory incentives for innovative emissions control technologies. I would like to ask you to have your staff develop by April 7, 1988, an outline of your next steps in implementing these recommendations. If you have any questions, please contact my Counsellor, C. Boyden Gray.

Sincerely,

George Bush

Enclosure

Attachment

## Task Force Recommendations to Promote Innovative Emissions Control Technology

The President asked the Task Force on Regulatory Relief to examine incentives and disincentives to the deployment of new emissions control technologies and other cost-effective, innovative $NO_x$ and $SO_2$ emission reduction measures. On January 23, 1988, the White House announced acceptance of the following Task Force recommendations:

Department of Energy (DOE) Programs:

- Consider Giving Preference to Innovative Projects in States that Provide Incentives - consider giving preference, under the Administration's Clean Coal Technology (CCT) program and/or FERC regulatory incentives, to projects in States that, for rate making purposes, treat CCTs the same as pollution control projects.
- Cost-effectiveness Factors - consider giving preference in selection under the CCT program to projects demonstrating innovative technologies that promise superior cost-effectiveness.

Environmental Protection Agency (EPA) Actions:

- "New-new" Bubbles - encourage greater use of the recently promulgated policy of allowing emissions trading between two sources subject to certain New Source Performance Standards (NSPS).
- Complementary Use of New-new Bubbles and Innovative Technology Waivers - encourage use of these existing emission trading options by utilities that are uncertain whether an innovative CCT will actually achieve NSPS levels before a waiver expires.
- Commercial Demonstration Permits - expand the availability and applicability of the present commercial demonstration permits that allow innovative control technologies for utility boilers to meet less stringent standards than required for other new sources.
- $NO_x$ Control Strategies for Ozone - issue guidance encouraging those areas of the country that can reduce ozone by controlling $NO_x$ to examine the potential role of nitrogen oxides ($NO_x$) reductions in place of more expensive volatile organic compound (VOC) reductions in State Implementation Plans (either through interpollutant emission trades or direct State regulatory actions).

Federal Energy Regulatory Commission (FERC) Actions:

- Incentive Rate of Return - establish an incentive rate of return for innovative emission control technologies (coal and non-coal) that recognizes their inherent risk. FERC already provides this incentive in certain circumstances.
- Allowance for Construction Work in Progress ("Full CWIP") - include construction costs for innovative emission control technologies in the rate base as incurred. Full CWIP is currently provided for pollution control costs and should reduce "rate shock" for consumers.
- Accelerated Amortization - apply a 20 to 20 year amortization period to recover the capital costs of innovative emission control technologies. Currently, the typical amortization period is 30 years.

One of the objectives of the FERC program is to lower costs to ratepayers while fostering technological improvements. With this objective in mind, the Task Force recommends that FERC establish a demonstration program subject to the following conditions: (1) the program will be established on a temporary basis with a possible extension beyond its initial 5-year life (after evaluating the merits of the program); (2) the program will cover no more than four units in each tehnology class; and (3) the new technology classes covered by the program should be reasonably likely to realize cost reductions of at least 15 percent when deployed.

Question: Is the report containing these recommendations available? If not, when will it be available?

Answer: No report on the Task Force's recommendation has been released to date. It is our understanding that a report is planned, but there is, at this time, no definite schedule.

Question: If Congress appropriates the advance of $1.775 billion through FY 1992 for the clean coal program, as requested by the President, do you feel regulatory changes -- like those proposed by the President's Task Force on Regulatory Relief -- still are required to assure the commercialization of clean coal technologies? If so, why?

Answer: Clean coal technologies will offer the potential for meeting U.S. industrial requirements of producing lower cost, more efficient and more environmentally acceptable sources of energy from coal. These characteristics will in themselves ensure that the technologies can penetrate the energy markets through the action of normal market forces. While regulatory changes are not absolutely necessary to assure commercialization of clean coal technologies, the changes proposed by the President's Task Force will certainly facilitate the adoption of these new technologies.

Question: How crucial are these regulatory changes to the widespread adoption of these technologies in the private sector leading to commercial deployment of the technologies?

Answer: The primary driving force for adoption will be the superior economics and system performance of the new clean coal technologies, but we also believe that the recommendations of the Task Force on Regulatory Relief could accelerate their deployment.

Question: Why are these changes not contained in the "Program Opportunity Notice," the final request for proposals for the program?

Answer: The Program Opportunity Notice did not include regulatory changes for two principal reasons:

- The PON was considered only as the mechanism for specifying what the Department was seeking in the way of projects and for creating the basis for cofunding the demonstration projects.

- Changes in regulations require the implementation of a very different procedure. It is not possible to institute such changes by means of a PON.

Question: Has the Department decided to give preference to projects located in states with regulatory incentives?

Answer: The February 22, 1988, PON (and subsequent modification) stated that, "DOE will consider giving preference to projects located in states for which the ratemaking bodies of those states treat the Innovative Clean Coal Technologies the same as pollution control projects or technologies," and that this consideration would be used only as a tie-breaker and only when it did not bias regional or technological diversity.

Question: How does the Department respond to that criticism?

Answer: The Department believes that its use of incentives created by preferentially considering projects proposed for location in states that would treat the project in a manner similar to that given to pollution control projects does not greatly impact the participant proposing a project in a state not offering such treatment. The conditions under which the Department would apply this criteria of the PON are quite limited and would be implemented only in the case of a tie.

Question: Many advocates of the advancement of clean coal technology believe that the government must assist private industry in the early commercial deployment of these technologies in order to assure their widespread penetration into the marketplace.

Does the Department intend to support replications of technologies that have previously been demonstrated, or more than one demonstration of the same technology? If so, why? Who will benefit the most from replications?

Answer: The Department does not intend to support projects that are exact replications of those previously demonstrated as part of the program. This does not mean, however, that the same technology used in a different application or under different site conditions will not be considered. The state-of-the-art can be dramatically expanded by developing the full capabilities of a given technology. In many cases, this can only be accomplished by demonstrating its suitability for application under a wide range of site specific conditions. It is expected that all parties interested in the technology will gain from its multiple but different applications.

Question: If so, what will be the criteria for soliciting projects with these funds, if appropriated?

Answer: The same criteria will be applied in the selection of all projects. These criteria are flexible enough to give full consideration to a project featuring a technology currently in the program but being demonstrated in a new and significantly different configuration. These criteria can determine the significance of the project and the importance of the data generated to the goals and objectives of the program.

Question: Will financial incentives proposed by the President be enough to assure the widespread commercial incorporation of clean coal technologies? If not, what else will be necessary to assure market penetration?

Answer: We believe that the three groups of recommendations proposed by the President's Task Force on Regulatory Relief, if successfully implemented, will accelerate the deployment of Clean Coal

Technologies. This acceleration should be sufficient to accomplish the objective of the Clean Coal Initiative. However, we will continue to evaluate the applicability of additional incentives that might be applied if it should become necessary.

## QUESTIONS SUBMITTED BY SENATOR THAD COCHRAN

### Clean Coal Technology

Question: What are the prospects for the continued development of clean coal technologies given the $SO_2$ emissions reduction timeframes proposed in current acid rain legislation?

Answer: The prospects for the continued development of clean coal technologies given the $SO_2$ reduction timeframes contained in acid rain legislation would be bleak. This is due to the fact that utilities would be forced to raise large amounts of capital to reduce emissions utilizing conventional technologies, rather than putting capital into the demonstration of new technologies. Public utility commissions, in turn, would be likely to approve the rate increases associated with the installation of conventional technologies since their performance has already been demonstrated. Thus, the development of clean coal technologies would be severely hampered by the enactment of acid rain legislation.

Question: In light of the current level of acid rain science, how do the deployment schedules for clean coal technologies compare with, and how could they affect, the National Acid Precipitation Assessment Program projected trends in emissions?

Answer: DOE believes that the application of Clean Coal technologies will have a significant effect on future emissions by the year 2000. This belief is based on studies both by DOE and other organizations. Plans presently under consideration by NAPAP as part of the 1990 Assessment call for projecting future emissions as a function of a range of assumptions about the cost, performance and availability of Clean Coal technologies. These projections as presently envisioned will consider the application of Clean Coal technologies under both free market assumptions and under various retrofit control, repowering and reboilering control measure scenarios. We expect those projections to confirm DOE's prognosis with regard to Clean Coal technologies.

Question: What are the differences between the developing Clean Coal Technologies and the current scrubber methods in their production of solid waste materials? In volume? In disposability?

Answer: The solid waste stream from current scrubber methods (i.e., Flue Gas Desulfurization (FGD)) is a reactive sludge requiring treatment before disposal into sludge ponds. The discussion herein assumes conventional FGD sludge dewatering technology. Clean Coal Technologies result in a broad spectrum of solid waste materials. But generally the wastes produced are dry and benign and can be landfilled with either no treatment or minimal treatment. As to volume, the Clean Coal Technology retrofit systems, such as LIMB or Coolside duct injection, are going to produce greater volumes of solid waste. However, the cost per kilowatt and the character of the waste (dry, easily handleable) make these technologies attractive. As to some of the more advanced clean coal power systems considered for repowering, the following applies:

- o Atmospheric and Pressurized Fluidized Beds (AFBC/PFBC) -- The waste produced is a dry granular mixture of ash and reacted and unreacted sorbent (non-hazardous waste). The amount of solid waste produced relative to a Pulverized Coal Fired (PCF) system with FGD is less on a pound per kilowatt basis (with PFBC being somewhat less in volume than AFBC). Acreage requirements for AFBC/PFBC solid waste disposal per 100 MWe would be approximately one-quarter that of a PCF with FGD.

- o Integrated Gasification Combined Cycle (IGCC) -- The solid waste generated is either a fused ash (Texaco) or a dry granular mixture of ash and reacted and unreacted sorbent. Also, there is the potential within the system to make elemental sulfur or sulfuric acid, thereby reducing the amount of solid waste to be dealt with. The amount of solid waste produced in those cases relative to PCF with FGD is far less in a pounds per kilowatt basis (less than either AFBC or PFBC). Solid waste disposal acreage requirements for such IGCC systems per 100 MWe would be approximately one-twentieth that of PCF with FGD. IGCC with in-gasifier sulfur absorption is comparable to a PFBC system in terms of solid waste character and volume.

- o Slagging Combustors -- Slagging combustors remove a large percentage of the ash and sulfur (reacted with sorbent) in the combustor as an inert slag (incorporates unreacted sorbent as well). The amount of solid waste generated on a weight basis is greater relative to PCF with FGD (due to higher ratios of sorbent to $SO_2$). However, because the solid waste is fused, it is more dense and requires less volume for disposal. Consequently, land requirements for disposal should be less. The inert nature of the bulk of the solid wastes allows for tremendous flexibility as to solid waste disposal options.

Other Clean Coal Technology (CCT) options exist, but the above gives some idea as to the solid waste impacts that can be expected. It should be noted that during the demonstrations being performed under CCT, comprehensive quantitative analyses will be made to establish environmental performance. This includes solid waste disposal.

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## QUESTIONS SUBMITTED BY SENATOR DALE BUMPERS

### Tar Sands

Question: United States tar sands resources are estimated to be between 29 and 54 billion barrels. Canadian resources are estimated to be a trillion barrels. According to the DOE Program Plan for tar sands (March 1986) - "tar sands technology can be applied to this extensive resource base to fill the gap between now and the critical time when this nation will rely more extensively on synthetic fuels. Further, tar sands has the potential to mitigate oil supply disruptions of an intermediate duration." Does the Department still agree with these statements?

Answer: The Department presently believes that economical development of U.S. tar sands will probably not occur in the near term. We judge that higher priority must be given to the development of advanced recovery techniques in the light oil and heavy oil areas.

Question: Since 1986, U.S. reliance on imported petroleum has increased significantly and domestic petroleum production has declined. These trends are projected to continue. Given the potential identified by DOE in 1986 for tar sands to "fill the gap", and the potentially vast resource base in the U.S. and Canada, why has the Department requested no funds for tar sand research in FY 1989?

Answer: The Department presently believes that economical development of U.S. tar sands will probably not occur in the near term. Thus, in a time of budget constraint, this translates into a reduced priority for tar sand research. The available funds are targeted for enhanced light and heavy oil recovery.

Question: The FY 1988 appropriation for tar sands was $1.9 million. What appropriation level is necessary in FY 1989 to continue the programs funded in this fiscal year?

Answer: The Department believes it has proposed a budget that properly balances the need to meet national budget concerns and to expand both short-term and long-term energy security. Although we have not requested FY 1989 funding for tar sand research, the Department has requested funds for support of industrial, cost-shared cooperative research and development ventures directed to effectively increase our moderately priced liquid and gaseous resources. Such ventures are seen as encompassing a range of resources and competitively-selected projects that could include tar sand extraction projects.

Question: What level of funding was requested for tar sands within the Department? What level of funding was requested of OMB by the Department? What projects would have been initiated or continued under these funding levels?

Answer: Fossil Energy did not request FY 1989 funding for tar sands within the Department, nor did the Department request any tar sands FY 1989 funding from OMB. None of the ongoing tar sands projects would be continued after exhaustion of FY 1988 funds.

Question: What is the current status of the Department's contract with the University of Arkansas on solvent recovery technology for tar sands?

Answer: The Department's lead implementation office for the tar sand program, Laramie Project Office/Morgantown Energy Technology Center, received a proposal on April 15, 1988, from the University of Arkansas for about $400,000 of research effort in response to a directed RFP issued by the Department. Although subject to final and customary DOE contracting reviews, preliminary technical reviews suggest that DOE-supported university efforts should be authorized by May 15, 1988, as sought by the proposer.

Question: What is the estimated funding required for pilot testing of the University of Arkansas/DPR technology? Can this be accomplished within existing funds?

Answer: Our current estimate of the total funds required to evaluate the University of Arkansas/DPR technology for surface tar sand recovery, first at the laboratory level and then through pilot testing, is $3,150,000. This estimate is predicated on the following phasing, wherein successive year work would be funded following satisfactory completion and positive results of previous year work:

| | |
|---|---|
| Year 1: | Preliminary extraction concept evaluations on a laboratory scale, batch basis (FY 1988 $400,000) |
| Year 2: | Concept evaluation on a laboratory scale, continuous flow basis, and scaleup, pilot plant design ($750,000) |
| Year 3: | Final design and construction of 25 barrel per day pilot plant ($1,000,000) |
| Year 4: | Operation of pilot test and evaluation of tar sand extraction concept ($1,000,000) |

The FY 1988 funding of $400,000 is available, but based on current technical and budget priorities the funding for future phases has not been requested.

## SUBCOMMITTEE RECESS

Senator BYRD. The subcommittee will stand in recess until 1:30 p.m. on Wednesday, April 20, when we will review the fiscal year 1989 budget estimates for the Office of Territorial Affairs and the territorial governments.

Thank you, Mr. Secretary.

[Whereupon, at 9:52 a.m., Monday, April 18, the subcommittee was recessed, to reconvene at 1:30 p.m., Wednesday, April 20.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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WEDNESDAY, APRIL 20, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 2 p.m. in room SD–192, Dirksen Senate Office Building, Hon. J. Bennett Johnston presiding.

Present: Senators Johnston and McClure.

## TERRITORIAL AFFAIRS

### VIRGIN ISLANDS

### STATEMENT OF HON. RON DE LUGO, CHAIRMAN, HOUSE SUBCOMMITTEE ON INSULAR AND INTERNATIONAL AFFAIRS

### ACCOMPANIED BY HON. ALEXANDER FARRELLY, GOVERNOR, VIRGIN ISLANDS

### OPENING REMARKS

Senator JOHNSTON. The committee will come to order. Today the committee will take up the fiscal year 1989 budget request for territorial and international affairs. We will begin by hearing the testimony of the territorial and commonwealth governments, and then we will receive testimony from administration officials.

Because of time constraints we have allotted 10 minutes for each witness. Your full statements will automatically be placed in the record at the appropriate place. Please use 5 minutes to summarize your statements so that the committee may use the remainder of the time for questions.

We have put a note pad on the witness table. If each witness and those accompanying each witness would please write their names for the court reporter, it would be appreciated.

### INTRODUCTION OF VIRGIN ISLANDS OFFICIALS

We are pleased to see so many of our friends here this morning. I wish to particularly recognize our first witness, the chairman of the

House Subcommittee on Insular and International Affairs, the Honorable Ron de Lugo, my good friend from the Virgin Islands.

Mr. Chairman, please proceed.

Mr. DE LUGO. Thank you very much, Mr. Chairman. Also present is Governor Farrelly. I am going to have a very, very brief statement. I don't know how the chair would like to proceed.

Senator JOHNSTON. The Governor is welcome as well. He is a very good friend of mine.

Mr. DE LUGO. Mr. Chairman, I am just going to introduce Governor Farrelly. He is in a position to outline the needs of his territory.

### VIRGIN ISLANDS WATER NEEDS

I will say that I was greatly disappointed, as was the Governor, when we received the President's budget, which had a total of $1.1 million in it for the Virgin Islands. I think the Governor will address this. That $1.1 million was for water projects and that is totally inadequate, when, as you know, the Virgin Islands master plan back in 1982 estimated that it would take $17 million in a phased program to bring that water program up to par by the year 1990. So far we have given the Virgin Islands approximately $7.2 million toward that.

That is inadequate. We over on the House side have recommended that the figure be $3.1 million for fiscal year 1989.

### VIRGIN ISLANDS DRUG PROGRAM

Most importantly, I would like to say something about drugs, and I want to take a moment here to thank the chair for your help and your leadership on this problem. You on the Senate side—and I know you played a big role in this—increased the budget. I think it was by some $2.5 million for the war on drugs this year. I think you serve both on the Budget Committee and on the Appropriations Committee. We know that it is going to take a lot of money and a lot of commitment to attack this problem.

We in the Virgin Islands are sitting out there in the Caribbean with very, very little Federal presence. We have a small Coast Guard station there. We have one DEA agent who was just recently brought into the territory through the Governor's efforts.

It is for that reason that the House and the Senate have supported that $4 million drug program for the Virgin Islands and that last year you supported $2.5 million. The amazing thing was that when the administration's budget came up this time on the Hill it didn't have one penny in it to continue this program. As you know, you had authorized an additional $1.5 million over the next 2 year period.

You also asked that the Virgin Islands prepare a real program, a plan. I am pleased with the plan that they have proposed. You know, proposals can come in several shapes. They can be the usual puffery, a lot of verbiage and it doesn't turn out to mean anything. When I received the plan that was fax'd up to me recently, I picked up the phone after going over it and I called those involved. They are here today, Governor Farrelly and Jacqueline Dennis of the Governor's task force. She was charged with pulling this plan together.

I also contacted Ralph Tarr, the Solicitor of the Interior Department, who heads the Federal effort as it relates to the Virgin Islands.

I believe, Mr. Chairman, that the Virgin Islands will need in fiscal year 1988 the $1.5 million and we need to get going on this drug war immediately.

PREPARED STATEMENT

With that, I am simply going to offer my statement for the record, and I will be pleased to answer any questions.

Senator JOHNSTON. Thank you very much.

Governor Farrelly, we are delighted to welcome you.

[The statement follows:]

## STATEMENT OF HON. ALEXANDER A. FARRELLY

I thank you for asking me to be here today to express my views on the budget request for the United States Virgin Islands for Fiscal Year 1989.

Before I get to the specifics of the budget, I want to give you a bit of a progress report on the state of the Territory of the Virgin Islands.

One year ago, when I had had a scant three-month experience as the newly-elected Governor of the United States Virgin Islands, I appeared before this Subcommittee to testify on the Fiscal Year 1988 budget. I told you that the Government of the Virgin Islands was in a deplorable state; that it was $80 million in debt; that it could not run programs or deliver services with credibility, much less efficiency. I even said -- and I quote myself -- "In short, it's a mess."

I'm happy to say that my message to you today is not nearly so gloomy.

Last June, I signed into law a sweeping reorganization plan for the Executive Branch of the Virgin Islands Government, a plan which I began working on even before I took the Oath of Office. I told the Legislature that I considered the Reorganization the first step on the road to recovery. With the cooperation of the Legislature and broad support from the public, Executive agencies, programs and functions were consolidated and steamlined, always with the twin goals of efficiency and economy in the delivery of services to our people.

In September of 1987, I was able to report to the Legislature that the territory's economy was healthy and that Government revenues were up, that the Government was in a position to pay its employees their retroactive pay increases, and that we could complete the fiscal year with the inherited deficit eliminated.

That is the positive side of the picture -- and it is also the reason for the dilemma we Virgin Islands find ourselves in today.

Earlier this year, Delegate de Lugo invited me to testify before his Subcommittee on Insular and Inernational Affairs on President Reagan's Fiscal Year 1989 budget proposals as they pertain to the United States Virgin Islands.

There wasn't much to testify about: the budget proposed $1.1 million for water distribution projects in the Virgin Islands. PERIOD.

In testimony before Delegate de Lugo's Subcommittee, the Department of the Interior spokesman stated that the economies of the territories are "exceptionally strong", that the Virgin Islands economy is expanding rapidly, that tourism is accelerating its upward movement, that we have a relatively low unemployment rate (an inaccurate statement, by the way), and that we had paid off the accumulated Government debt my Administration inherited.

We don't have time today to debate whether the economies of the territories are truly "exceptionally strong", to explore the fragility of a tourism-based economy, or to detail the reasons for elimnination of the Government's debt.

But it is seems to me that we are the victims of our own hard work and good intentions. The state of the Virgin Islands is indeed much improved from where we were one year ago. But, Mr. Chairman, we have worked long and hard during this past year to get where we are today and it is discouraging to be ignored simply because we have worked so hard to help ourselves.

Having said all of this, I want to give my unequivocal support to the proposals contained in the report of the Committee on Interior and Insular Affairs of the House of Representatives to the Committee on the Budget.

The Committee's report impacts on the United States Virgin Islands in two major areas: drug abuse control and water system improvements.

I was astounded that the President's budget did not include funds for the Virgin Islands for drug control. The Committee report notes that "The U.S. insular areas are, in a very real sense, the nation's insular borders in the Caribbean and the Pacific. Drug traffickers know this and have used the Virgin Islands (and other insular areas) for transshipment of deadly narcotics from other countries to the U.S. mainland. One of the consequences of this activity has been an increase in local drug abuse in insular areas. Drug-related crime has pushed violent crime rates in the Virgin Islands to levels many times higher than the national average.

So, Mr. Chairman and members of this Subcommittee, I cannot emphasize too strongly that the drug problem in the Virgin Islands is staggering -- and it is two-fold.

On one hand, the report speaks of transshipment of deadly narcotics to the mainland. We have hundreds of miles of shoreline and dozens of beaches in the Virgin Islands where boats can land. There is one -- one -- Coast Guard vessel stationed in the Virgin Islands to patrol our waters. Because of our limited financial resources, we cannot adequately staff and equip our Narcotics Strike Force and related Department of Police units.

Thus, the narcotics flow through the islands and they end up on the streets here in Washington, D.C., and in the towns and cities of your home districts.

The second aspect of our drug problem is what it is doing to the Virgin Islands people. When the narcotics pass through the islands, the debris from the trade falls on our streets and into the hands of our people. It has been suggested that I could walk three blocks in any direction from Government House in Charlotte Amalie and make a buy of crack or cocaine or marijuana.

There is no question that a large percentage of our violent crimes are caused by persons on drugs or that the escalating number of burglaries and robberies are committed by people trying to get money to buy drugs.

$2.5 million was appropriated by the Federal Government in Fiscal Year 1988, with an additional authorization of $1.5 million by the Congress, for drug abuse control in the Virgin Islands. These monies are contingent upon the preparation of a three-year plan for the control, prevention, and treatment of narcotics abuse. I appointed the Virgin Islands Drug Policy Board, consisting of the Attorney General, the Commissioners of Police, Education, Health, and Human Services, the Chief Judge of the United States District Court, the United States District Attorney, and the Presiding Judge of the Territorial Court to prepare the plan. That plan has been submitted to the federal Drug Policy Board and to this Subcommitee.

It is a good plan -- carefully thought out and designed to help us get a handle on the problem. It involves programs and initiatives in law enforcement, treatment, testing, prevention, and information and education.

I can't stress too strongly the urgency for releasing the $2.5 million already appropriated for the Virgin Islands for drug abuse control or for the inclusion of an additional $1.5 million in the FY 1989 budget.

I also want to inject the thought that a three-year plan is not going to get rid of the narcotics mess. Government -- Federal, state, territorial, and local -- is going to be grappling with this problem for years to come.

Mr. Chairman, I also support the appropriation of $3.1 million for renovation of water transmission lines on St. Thomas and St. Croix. In order to accurately assess our needs in the Virgin Islands, studies of the water storage and distribution systems were performed by the CH2M Hill for the Department of Public Works and the Virgin Islands Water and Power Authority. These studies documented what we already knew -- that serious deficiencies exist in the water storage and distribution systems and that several rehabilitation projects should be undertaken to upgrade, repair and safeguard the facilities. The price tag was for tens of millions of dollars.

In response to a request from the Department of Interior that I provide a realistic assessment of our needs for capital improvements in our water storage and distribution systems, last August I wrote to Kittie Baier, then Acting Assistant Secretary of the Office of Territorial and International Affairs, detailing what we felt were our "bare-bones" needs to rehabilitate the system. The cost of these "bare-bones" needs came to $9,140,000.

Subsequently, I was informed that available funding would be far less than what is actually needed. In response, I prepared a drastically reduced funding request which came to $2.7 million. Although I was painfully aware that the $2.7 million fell far short of our real needs, I made the pared-down funding request in good faith and with the reasonable assumption that the Department was attempting to balance budgetary realities with our very real needs.

So, Mr. Chairman and members of this Subcommittee, you can understand why I was flabbergasted to learn that the Department is asking for only $1.1 million to deal with our water problems. You can also undestand why I wholeheartedly support the House Committee's figure of $3.1 million.

I appreciate the opportunity to appear before this Subcommittee. I thank you for your attention and I will answer any questions you might have.

VIRGIN ISLANDS IMPROVED ECONOMIC CONDITION

Governor FARRELLY. Mr. Chairman, I appreciate the opportunity to appear before this distinguished subcommittee led by a distinguished Senator such as yourself. I appreciate the opportunity to express our views on matters of great moment to the territory, and so without occupying more time, I will proceed with some summary of my testimony.

The young lady sitting to the right of our Congressman is Jacqueline Dennis, who is my resource and if necessary will supplement whatever statement she might wish to make in writing for the benefit of the subcommittee's record.

I might say that 1 year ago, when I had had 3 months experience as the new Governor, I appeared before this subcommittee on the fiscal aspects of the budget. I told you the bad shape in which the government was and its revenue system and its ability to deliver programs with credibility.

I am happy to say that the message of last year has been modified and things are not nearly so gloomy. We reorganized our government to reduce the cost. We paid off an $80 million deficit, including $37 million of employees' retroactive wages, and we have brought some life back into the administrative process.

In September 1987 I was able to say to the legislature that the economy was healthy, revenues were up, and we had paid off these debts.

It ought to be noted that the source of revenue for doing all of those things was in part due to not-to-be- repeated tax windfalls.

That is the positive side of the picture.

There wasn't much to testify about at the last hearing before what I would call the de Lugo subcommittee where the budget proposed for water distribution projects in the Virgin Islands was $1.1 million, period. In testimony before that subcommittee the Interior Department said that the economies of the territories were strong, our economy was expanding, our unemployment rate was 2.7, and we had paid off an accumulated government debt.

I will not take the committee's time today to debate whether the economies of the territories are truly exceptionally strong, to explore the fragility of a tourism-based economy, or to detail the reasons for elimination of the government's debt.

But it seems to me, and the point ought to be made, that we are the victims of our own hard work and good intentions. The state of the Virgin Islands is much improved from what it was 1 year ago, but we have worked long and hard to get where we are today. And thus it is a little discouraging to be ignored simply because we have worked hard to help ourselves.

Having said all of this, I want to give my unequivocal support to the proposals contained in the report of the Committee on Interior and Insular Affairs.

The committee's report impacts on the Virgin Islands in two major areas, drug abuse control and water system improvements.

ADDITIONAL DRUG FUNDING URGED

I was frankly astounded that the President's budget did not include funds for the Virgin Islands for drug control. The committee report notes that the United States insular areas are in a very real sense the Nation's insular borders in the Caribbean and the Pacific, and drug trafficking folks know this and have used the Virgin Islands for transshipment of deadly narcotics from other countries to the United States mainland. One of the consequences of this activity has been an increase in local drug abuse in insular areas and drug-related crime has pushed violent crime rates to levels many times higher than the national average.

So, Mr. Chairman and members of this distinguished subcommittee, I cannot emphasize too strongly that the drug problem in the Virgin Islands is staggering and it is twofold.

One, the report speaks of transshipment of deadly narcotics to the mainland. We in the Virgin Islands have hundreds of miles of shoreline and dozens of beaches where boats can land almost with impunity.

There is one—one—Coast Guard vessel stationed in the Virgin Islands to patrol our waters. Because of our limited financial resources, we cannot adequately staff and equip our narcotics strike force and related department of police units.

Thus the narcotics flow through the islands and they end up on the streets here in Washington and in the towns and cities of your home districts.

The second aspect of our drug problem is what it is doing to the Virgin Islands people. When the narcotics pass through the islands the debris from the trade falls on our streets and into the hands of our people. It has been suggested that I could walk three blocks in any direction from Government House and find a buy of crack, cocaine, or marijuana.

There is no question, then, that a large percentage of our violent crimes are caused by persons on drugs or that the escalating number of burglaries and robberies are committed by people trying to get money to make buys.

Some $2.5 million was appropriated by the Federal Government in fiscal year 1988 with an additional authorization of $1.5 million by the Congress for drug abuse control in the Virgin Islands. These moneys are contingent upon the preparation of a 3-year plan, which I have the good fortune to tell you has been prepared timely and has been greeted as being receptive and in compliance with what we believe are the National Drug Policy Board requirements. The board was appointed; we had all our senior law enforcement staff aboard; and Ms. Dennis was the coordinator of the committee meetings and the production of the plan.

The plan includes programs and initiatives in law enforcement, training, testing, preventing, information, and education. I cannot stress too strongly the urgency of releasing the $2.5 million in the fiscal year 1989 budget.

I might want to say at this point, not to give false hope, that the 3-year plan in and of itself will not get rid of the narcotics in the Virgin Islands or anywhere else, but that governments, Federal, State, territorial, and local, will have to continue to grapple with this problem for years to come. We just need to get a handle on the problem and begin to improve the vigor of our handling of the problem.

I also support, Mr. Chairman, the appropriation of $3.1 million for renovation of water transmission lines on St. Thomas and St. Croix.

## VIRGIN ISLANDS WATER INFRASTRUCTURE NEEDS

In response to a request from the Department of the Interior that I provide a realistic assessment of our needs for capital improvements in our water storage and distribution system, I wrote to the Secretary, indicating that we felt $9 million was our barebones needs. Upon being reminded of the serious Federal budgetary problem, we then reduced that to approximately $2.1 million. We did that reduction in good faith on the reasonable assumption that the Department was trying to balance its budgetary realities with our real needs.

So you can understand why we were flabbergasted to learn that the Department was simply asking for $1.1 million to deal with our water problems.

I appreciate the opportunity to appear before this distinguished subcommittee and this distinguished chairman. I thank you for your attention and am willing to answer any questions that you might have, sir.

## VIRGIN ISLANDS ST. THOMAS AIRPORT

Senator JOHNSTON. Thank you very much, Governor, and thank you, Chairman de Lugo.

The airport at St. Thomas, I ask every year about progress on that. How are we coming along with that?

Governor FARRELLY. We are making good progress. You will be pleased to know that because of the pendency of the lawsuit against the German construction company, which has tied up the escrow funds, the administration has moved for an alternative way of funding the St. Thomas airport. We are now consulting intensively with airlines who are willing to sign revenue producing leasing which in turn will be used to fund the construction of the airport. We hope to break ground in August or September.

Senator JOHNSTON. Congratulations. That is a great move forward.

When do you foresee a decision on the lawsuit?

Governor FARRELLY. Hopefully, Senator, in May or June. There are two motions for summary judgment by each party. If that is denied, I think the matter will go to early trial in about May or June, and if it does, that should have a very curative effect on the escrow money now lying and earning interest.

Senator JOHNSTON. Governor, I want to repeat what I told you before, and that is that you are doing a fine job in the Virgin Islands. I think that is thought not only by us up here, but by people in the Virgin Islands.

I think the Virgin Islands is in very good shape and I approve of your government down there. We want to help you every way we can. You understand what our limitations are as far as money is concerned. We will do the very best we can for you.

Thank you very much.

I have got to go vote right now. We will be back in just a few moments.

[A brief recess was taken.]

## AMERICAN SAMOA

STATEMENTS OF:
HON. FOFO SUNIA, MEMBER OF CONGRESS
HON. A. P. LUTALI, GOVERNOR

ACCOMPANIED BY:
JOSEPH K. IULI, BUDGET DIRECTOR
LETULI TOLOA, PRESIDENT OF THE SENATE
TUANA-ITAU S. TUIA, SPEAKER OF THE HOUSE

### PREPARED STATEMENTS

Senator McCLURE [presiding]. The subcommittee will come to order.

We will next hear from representatives from American Samoa.

Congressman Sunia and Governor Lutali, if you will come forward please and take your seats. If you would also introduce those who may be accompanying you.

Mr. SUNIA. Thank you, Mr. Chairman.

I have with me Governor Lutali and with him is his budget director, Mr. Iuli. On my left is the president of the senate, Chief Toloa, and the speaker of the house, Mr. Tuia, all of whom you have seen at one point or another in the past.

Senator McCLURE. I would invite you to summarize your statement. The statements, of course, will be placed in the record in full.

[The statements follow:]

## STATEMENT OF FOFO I.F. SUNIA

MR. CHAIRMAN, THANK YOU VERY MUCH FOR YOUR KINDNESS IN RECEIVING MY TESTIMONY TODAY. OVER THE YEARS I HAVE GREATLY APPRECIATED YOUR HELP, PARTICULARLY LAST YEAR. SINCE 1981 I HAVE APPEARED BEFORE THIS COMMITTEE. YOU AND ITS OTHER MEMBERS HAVE SHOWN ME GREAT SYMPATHY AND COURTESY.

THE DEPARTMENT OF THE INTERIOR AND THE OFFICE OF MANAGEMENT AND BUDGET HAVE RECOMMENDED A LEVEL OF FUNDING FOR OPERATIONS OF THE AMERICAN SAMOA GOVERNMENT EQUAL TO THAT FOR LAST YEAR AND THE YEAR BEFORE THAT. WHILE THE TOTAL COSTS OF OPERATIONS HAVE INCREASED OVER THIS PERIOD AND THE TERRITORY WOULD APPRECIATE ADDITIONAL CONGRESSIONAL APPROPRIATIONS, I AM ALSO VERY MUCH AWARE OF THE BUDGETARY RESTRAINTS WE MUST ALL FACE TOGETHER AND WILL, THEREFORE, NOT PRESS THE POINT OF COST INCREASES.

I WOULD NOW LIKE TO HIGHLIGHT, MR. CHAIRMAN, THE TWO ITEMS WHICH WE ASK FOR INCLUSION THIS YEAR. FIRST IS A SUM OF ONE MILLION (1,000,000) DOLLARS FOR IMPROVEMENTS AT THE LBJ HOSPITAL. THE PRESENT POOR STATUS OF THESE FACILITIES HAS CAUSED AT LEAST ONE CANCELLATION OF THE HOSPITAL'S ELIGIBILITY FOR CERTAIN GRANTS. IN ADDITION, MR. CHAIRMAN, THE LACK OF THESE FACILITIES REQUIRES A HIGHER NUMBER OF OFF-ISLAND PATIENT REFERRALS. THIS CREATES A HEAVY BURDEN ON THE AMERICAN SAMOA GOVERNMENT'S TOTAL FINANCIAL RESOURCES. I AM HOPEFUL THAT YOUR COMMITTEE WILL FAVOR ADDING THIS ITEM TO THE ONE CAPITAL IMPROVEMENT PROJECT WHICH THE DEPARTMENT OF THE INTERIOR AND THE OFFICE OF MANAGEMENT AND BUDGET HAVE RECOMMENDED.

THE OTHER ITEM IS THE ISSUE OF TWO SMALL DOCKS, THE ONE AT LEONE ON THE ISLAND OF TUTUILA AND THE OTHER ON THE ISLAND OF TA'U IN THE MANU'A GROUP.

FIRST IS THE REQUEST FOR ONE MILLION (1,000,000) DOLLARS FOR THE SMALL HARBOR AT LEONE. AFTER A CAREFUL STUDY OF THIS PROJECT, THE

GOVERNOR AND HIS ADMINISTRATION HAVE CONCLUDED THAT A SMALL HARBOR AT LEONE WOULD GREATLY EASE THE PROBLEMS OF CONGESTION IN THE HARBOR AT PAGO PAGO, FACILITATE AND SHORTEN INTER-ISLAND TRAVEL AND SPREAD OUT THE EFFECTS OF ECONOMIC DEVELOPMENT. IN FACT, ITS GREATEST EFFECT WOULD BE TO BOOST ECONOMIC GROWTH IN A PART OF THE TERRITORY WHERE INDUSTRY DOES NOT NOW EXIST.

SECOND COMES THE ALTERNATIVE LANDING STRIP ON TA'U ISLAND IN MANU'A. IF THIS COMMITTEE AGREES TO FUND THIS PROJECT, IT WILL CUT COSTS TO THE FEDERAL GOVERNMENT. IF THIS COMMITTEE DOES NOT SO AGREE, THE ARMY CORPS OF ENGINEERS WILL HAVE TO RE-DO THE SMALL DOCK AT THE TA'U HARBOR, A MUCH MORE EXPENSIVE PROJECT. SO AS NOT TO CHANGE THE FACILITIES AVAILABLE ON TA'U ISLAND, THE CORPS WILL NEED TO CORRECT THE PROBLEMS INHERENT AT THE SMALL DOCK.

THE GOVERNOR OF AMERICAN SAMOA HAS PERFORMED AN EXCELLENT JOB IN TURNING AROUND THE TERRITORY'S FINANCIAL STRUCTURE. HE HAS FOUGHT AGAINST DEFICITS. THIS TIME LAST YEAR SOURCES REPORTED IMPENDING HUGE DEFICITS AND THREATS OF CUT-BACKS, PROGRAM CANCELLATIONS AND LAY-OFFS. THE GOVERNOR WENT HOME AND IMMEDIATELY PUT IN MOTION A VERY SEVERE BUT REALISTIC BELT-TIGHTENING PROGRAM. HE FROZE GOVERNMENT TRAVEL, HIRING AND RAISES, CUT SPENDING AND PERFORMED SCORES OF OTHER SMALL BUT EFFECTIVE MEASURES.

THE ECONOMY IS ON THE UP-SWING IN PAGO PAGO. THE AMERICAN SAMOA GOVERNMENT HAS BUSIED ITSELF WITH THE REHABILITATION OF MANU'A IN THE WAKE OF HURRICANE TUSI IN JANUARY 1987. FISHING HAS INCREASED IN TA'U, OFU AND OLOSEGA AS HAS MORE ACTIVITY IN THE HARBORS AND VILLAGES.

TUTUILA, THE TERRITORY'S MAIN ISLAND, SHOWS NEW ECOMONIC ACTIVITY TOO. THE VILLAGE OF FAGATOGO, THE SEAT OF THE TERRITORY'S GOVERNMENT, IS NEARING COMPLETION ON A NEW SHOPPING MALL, ADJACENT TO THE LEGISLATURE BUILDING AND ACROSS THE STREET FROM THE OFFICES OF THE ATTORNEY GENERAL AND THE CHIEF JUSTICE. THE TERRITORY'S LOCALLY OWNED

BANK, THE AMERIKA SAMOA BANK, HAS JUST BEGUN THE FOUNDATION FOR ITS NEW HEADQUARTERS, RIGHT NEXT TO MY DISTRICT OFFICE. A LARGER AREA HAS BEEN CLEARED TO EXPAND THE TERRITORY'S INDUSTRIAL PARK.

AMERICAN SAMOA HOPES FOR SUCCESS IN CERTAIN BILLS WHICH ARE BEFORE CONGRESS AND ARE OF GREAT IMPORTANCE TO THE TERRITORY, IN PARTICULAR S. 210, THE PUBLIC HEALTH SERVICE ACT AMENDMENTS, AND H.R. 3660, THE BETTER CHILD CARE SERVICES ACT. THE FORMER WOULD PROVIDE LONG-TERM HEALTH INSURANCE FOR CATASTROPHIC ILLNESSES AND WOULD COVER THE ELDERLY AND THE DISABLED. THE LATTER WOULD SPECIFICALLY EXTEND TO THE TERRITORIES, INCLUDING AMERICAN SAMOA. IN ADDITION, WITH THE PROLIFERATION OF ILLEGAL DRUGS IN ALL AREAS UNDER THE UNITED STATES FLAG, AMERICAN SAMOA CONTINUES TO LOOK TO CONGRESS FOR HELP. TERRTITORIAL LAW ENFORCEMENT AGENCIES VALIANTLY ATTEND TO KEEPING THIS WRETCHED PLAGUE FROM OUR SHORES.

IN ATTENDANCE THIS AFTERNOON ARE THE MAIN REASONS THAT THE AMERICAN SAMOA GOVERNMENT IS SURELY ON THE ROAD TO FINANCIAL SOLVENCY: THE GOVERNOR OF AMERICAN SAMOA, THE HONORABLE A.P. LUTALI; THE PRESIDENT OF THE AMERICAN SAMOA SENATE, THE HONORABLE LETULI TOLOA; AND THE SPEAKER OF THE AMERICAN SAMOA HOUSE OF REPRESENTATIVES, THE HONORABLE TUANA'ITAU F. TUIA. THIS COMMITTEE WILL HAVE THE PLEASURE TO HEAR FROM THESE GENTLEMEN IN A FEW MINUTES. IN ADDITION, THE FOLLOWING GENTLEMEN ARE PRESENT WHO HAVE MANAGED A PROFESSIONAL REORGANIZATION OF THE TERRITORY'S BUDGETARY PROCESS: MR. TAUANU'U F. LIAIGA, TREASURER OF AMERICAN SAMOA; MR. IOSEFO IULI, DIRECTOR OF PROGRAM PLANNING AND BUDGET SINCE MARCH 1987; THE HONORABLE TAGALOA M. TUIOLOSEGA, THE HONORABLE SOLIAI F. TUIPINE AND THE HONORABLE FA'AFETAI LEFITI, WHO SERVE IN THE AMERICAN SAMOA SENATE; THE HONORABLE TALAVOU ALE, CHAIRMAN OF THE AMERICAN SAMOA HOUSE BUDGET COMMITTEE; THE HONORABLE SAO NUA, CHAIRMAN OF THE AMERICAN SAMOA HOUSE WAYS AND MEANS COMMITTEE; MR. MOTU MAUGA, THE DEPUTY DIRECTOR OF PROGRAM PLANNING AND BUDGET; MR. WALLY UTU, CHIEF

CLERK OF THE AMERICAN SAMOA HOUSE OF REPRESENTATIVES; AND MR. SOTOA SAVALI, LIAISON OFFICER OF THE AMERICAN SAMOA HOUSE OF REPRESENTATIVES. WITH THESE GENTLEMEN AT THE HELM, THE AMERICAN SAMOA GOVERNMENT HAS BEGUN A DELIBERATE EFFORT TO SECURE ITS HOLD ON THE TERRITORY'S FINANCES.

## STATEMENT OF A.P. LUTALI

MR. CHAIRMAN AND HONORABLE MEMBERS OF THE COMMITTEE, I THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU TODAY.

THIS IS MY FOURTH YEAR TO TESTIFY BEFORE THIS COMMITTEE. IT IS, AND HAS BEEN, THE MOST CHALLENGING DUTY I HAVE HAD TO PERFORM AS GOVERNOR OF AMERICAN SAMOA. NEVERTHELESS, IT IS ALWAYS AN HONOR AND PLEASURE TO CAPTURE THE ATTENTION OF SUCH A DISTINGUISHED AUDIENCE.

YOU WILL BE HAPPY TO KNOW THAT, UNLIKE PRIOR YEARS, THE AMERICAN SAMOA GOVERNMENT IS IN A SOUND FINANCIAL POSITION. WE COULD NOT HAVE ACCOMPLISHED THIS WITHOUT ASSISTANCE FROM THE OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS AND THE UNITED STATES CONGRESS. THE LEADERS OF THIS COUNTRY HAVE SHOWN GENUINE CONCERN FOR THE WELFARE OF OUR TERRITORY. FOR THIS, THE PEOPLE OF AMERICAN SAMOA ARE GRATEFUL, AND WILL ALWAYS REMAIN LOYAL TO THE UNITED STATES. WE ARE PROUD TO BE A PART OF THIS NATION.

YOU HAVE BEFORE YOU A COPY OF MY TESTIMONY PRESENTED TO THE HOUSE SUBCOMMITTEE ON INSULAR AND INTERNATIONAL AFFAIRS ON FEBRUARY 25, 1988, IN WHICH I DISCUSSED OUR FINANCIAL PERFORMANCE IN FISCAL YEAR 1987, WHICH WAS CONTRARY TO OUR MUTUAL EXPECTATIONS.

OUR POSITIVE FINANCIAL POSITION WAS LARGELY DUE TO AN UNANTICIPATED WINDFALL IN TUNA TAX REVENUES, AND AN OVERALL INCREASE IN CORPORATE, INDIVIDUAL, AND EXCISE TAXES. ANOTHER FACTOR WHICH CONTRIBUTED TO OUR ECONOMIC GROWTH WAS THE ADDITIONAL MONIES FLOWING INTO THE TERRITORY FROM HURRICANE TUSI. THESE, COUPLED WITH MUCH IMPROVED FISCAL MANAGEMENT AND THE STRICT APPLICATION OF COST CUTTING MEASURES, HAD A SIGNIFICANT AFFECT ON OUR FISCAL YEAR 1987 FINANCIAL PERFORMANCE.

I AM PLEASED TO REPORT THAT THE AMERICAN SAMOA GOVERNMENT

RECEIVED A VIRTUALLY CLEAN AUDIT OPINION IN 1987. THIS IS REFLECTED IN OUR "COMPREHENSIVE ANNUAL FINANCIAL REPORT FOR THE YEAR ENDED SEPTEMBER 30, 1987," AUDITED BY TOUCHE ROSS & COMPANY. ITS FINDINGS WILL ALLOW THE MEMBERS OF THIS COMMITTEE TO APPRECIATE THE SOUND FISCAL MANAGEMENT PRACTICES EXERCISED BY THE GOVERNMENT DURING 1987.

ALTHOUGH WE ARE PLEASED WITH OUR EFFORTS IN 1987, IT SHOULD BE POINTED OUT THAT, AS WELL AS WE PERFORMED, THE AMERICAN SAMOA GOVERNMENT DID FALL SHORT OF ITS REVENUE BUDGET BY $2.7 MILLION. FORTUNATELY, THIS DID NOT HAVE A SIGNIFICANT IMPACT, LARGELY BECAUSE THE GOVERNMENT CONTAINED COSTS, AND AS A RESULT, UNDERSPENT ITS GENERAL FUND BY $1.8 MILLION, AND REDUCED ITS DEFICIT CONSIDERABLY. THIS COST SAVING WAS DONE AT THE EXPENSE OF THE GOVERNMENT WORKFORCE AND THE DEFERRAL OF SEVERAL PROJECTS WHICH WERE CRITICAL TO THE ECONOMIC DEVELOPMENT OF THE TERRITORY.

OUR CONTINUED EFFORTS TO CONTAIN COSTS, IMPROVE REVENUE COLLECTIONS, AND CONTROL EXPENDITURES HAVE PRODUCED FAVORABLE RESULTS THUS FAR THIS YEAR. OUR REVENUE COLLECTIONS FOR THE FIRST HALF OF FISCAL YEAR 1988 ARE AS WE PROJECTED. MUCH OF THIS CAN BE ATTRIBUTED TO THE INCREASE IN LOCAL CONSTRUCTION AND THE SURGE OF BUSINESS ACTIVITY IN THE TERRITORY.

IN ADDITION, SEVERAL NEW REVENUE MEASURES WERE ENACTED LAST YEAR TO GENERATE ADDITIONAL FUNDS FOR THE USE IN VITALLY NEEDED CAPITAL IMPROVEMENT PROJECTS. MOST IMPORTANT WAS THE ENACTMENT OF PUBLIC LAW 20-51, THE "REVENUE RECOUPMENT ACT OF 1987". THIS LEGISLATION WAS NECESSARY TO RESTORE TAX REVENUES LOST BY AMERICAN SAMOA AS A CONSEQUENCE OF THE UNITED STATES TAX REFORM ACT OF 1986.

BY TAKING THE ABOVE ACTIONS, THE GOVERNMENT WAS ABLE TO REVISE ITS FISCAL YEAR 1988 REVENUE PROJECTIONS TO INCLUDE AN ADDITIONAL $3.2 MILLION. THESE FUNDS WERE THEN APPROPRIATED TO COVER THE COST OF AN ACROSS THE BOARD PAY RAISE TO ALL GOVERNMENT EMPLOYEES WHOSE SALARIES HAD BEEN FROZEN FOR TWO YEARS. THIS PAY INCREASE WAS LONG OVERDUE.

I HAVE SUBMITTED FOR YOUR REVIEW AND INFORMATION, A REVENUE COLLECTIONS AND CONTROL OF EXPENDITURES PLAN FOR THE AMERICAN SAMOA GOVERNMENT, AS MANDATED BY THE UNITED STATES CONGRESS IN PUBLIC LAW 100-202. THIS PLAN DOCUMENTS OUR COMMITMENT TO CONTINUE EXERCISING PRUDENT FINANCIAL MANAGEMENT. IT IS OUR HOPE TO HAVE A BALANCED BUDGET BY THE END OF FISCAL YEAR 1988.

AS PROMISING AS OUR LOCAL REVENUES HAVE BEEN THUS FAR FOR FISCALYEAR 1988, [illegible] ANTICIPATE A REDUCTION IN COLLECTIONS. WE FORESEE A DECREASE IN ECONOMIC ACTIVITY AS WE DRAW NEAR THE COMPLETION OF THE VARIOUS CONSTRUCTION PROJECTS AND OTHER PROGRAMS INITIATED AFTER HURRICANE TUSI. FOR THIS REASON, WE REMAIN MOST CONSERVATIVE. WE FEEL THAT THE POSITIVE ECONOMIC CHANGE IN THE LAST YEAR MIGHT BE SUPERFICIAL.

INASMUCH AS WE WOULD LIKE TO SEE THE PRESENT SOCIAL AND ECONOMIC TREND CONTINUE, THERE ARE NO ASSURANCES. WE MUST BE CIRCUMSPECT AND HEED THE EXTENUATING CIRCUMSTANCES WHICH BOOSTED OUR ECONOMY TO ITS PRESENT LEVEL. THAT IS THE TUNA INDUSTRY, WHICH IS EVER CHANGING, AND THE FUNDS FROM HURRICANE TUSI, WHICH WILL DIMINISH AS RECONSTRUCTION IS COMPLETED. CONSEQUENTLY, WE DEPEND ON THE FINANCIAL ASSISTANCE FROM THE UNITED STATES GOVERNMENT IN ORDER TO ASSURE THE PROVISION OF ESSENTIAL SERVICES TO THE PEOPLE OF AMERICAN SAMOA AND TO IMPROVE THE LOCAL INFRASTRUCTURE FOR PRESENT AND FUTURE ECONOMIC DEVELOPMENT.

OVER THE YEARS, AMERICAN SAMOA HAS MADE TREMENDOUS PROGRESS. I BELIEVE THE OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS CAN ATTEST TO THIS FACT.

WE HAVE MADE CONSIDERABLE IMPROVEMENTS IN OUR EDUCATIONAL CURRICULUM WHICH IS EVIDENT IN IMPROVED STUDENT PERFORMANCE LEVELS AND HIGHER PERCENTAGES IN SCHOLASTIC ACHIEVEMENT SCORES. WE HAVE INVESTED AN ENORMOUS AMOUNT OF FUNDS IN THE CAPITAL IMPROVEMENT OF SEVERAL SCHOOL FACILITIES, AND THE CONSTRUCTION OF NEW CLASSROOMS AND TWO HIGH SCHOOL GYMNASIUMS.

ADDITIONALLY, WE HAVE UPGRADED THE QUALITY OF OUR HEALTH CARE DELIVERY SYSTEM AND SOCIAL SERVICES.

OUR COMMUNICATION SYSTEM HAS ADVANCED SIGNIFICANTLY IN THE FIELD OF TECHNOLOGY. I AM PROUD TO SAY THAT AMERICAN SAMOA HAS ONE OF THE BEST COMMUNICATION SYSTEMS IN THE SOUTH PACIFIC.

OUR WATER AND UTILITY SYSTEMS HAVE ALSO PROGRESSED, ALTHOUGH THERE IS ROOM FOR NEEDED IMPROVEMENT.

AS YOU KNOW, AMERICAN SAMOA HAS BEEN THE FORERUNNER IN THE PACIFIC IN THE AREA OF PRIVATIZATION. WE HAVE HAD MUCH SUCCESS IN THE PRIVATIZATION OF SEVERAL GOVERNMENTAL FUNCTIONS SUCH AS THE MARINE RAILWAY FACILITY, WASTE COLLECTION, LIQUOR SALES AND HOSPITAL JANITORIAL SERVICES.

WE HAVE AND WILL CONTINUE TO AGGRESSIVELY PURSUE REGIONAL AND FOREIGN TRADE MISSIONS SO AS TO ATTRACT OUTSIDE INVESTMENT TO THE TERRITORY AND TO DIVERSIFY OUR ECONOMIC BASE.

TO ENSURE AN ENVIRONMENT CONDUCIVE TO THESE INITIATIVES, THE TERRITORY HAS IMPLEMENTED SEVERAL MAJOR CAPITAL IMPROVEMENT PROJECTS ESSENTIAL TO OUR ECONOMIC INFRASTRUCTURE. YOU HAVE BEFORE YOU A FINANCIAL PLAN AND TIME TABLE FOR EACH OF THE CAPITAL IMPROVEMENT PROJECTS CURRENTLY ONGOING IN THE ISLANDS. THIS WILL GIVE YOU AN INSIGHT OF THE MANY PROJECTS WHICH CONTRIBUTE TO THE OVERALL GROWTH OF OUR ECONOMY.

THIS BRINGS ME TO OUR FISCAL YEAR 1989 REQUEST FOR DEPARTMENT OF THE INTERIOR GRANT-IN-AID. ALTHOUGH HIGHER THAN THAT REQUESTED IN 1988, IT IS JUSTIFIED BY THE INCREASE IN GOVERNMENT SERVICES PROMPTED BY THE GROWING DEMAND FROM OUR GROWING POPULATION. A CAREFUL ANALYSIS OF OUR 1989 GRANT-IN-AID REQUEST REVEALS THAT THE MAJORITY OF FUNDS ARE ALLOCATED FOR HEALTH AT 6.6 MILLION DOLLARS, EDUCATION AT 8.2 MILLION, PUBLIC SAFETY AT 1.1 MILLION, AND 5.5 MILLION FOR PUBLIC WORKS. THESE AREAS ARE ESSENTIAL AND FOREMOST ON MY AGENDA.

YOU ARE INFORMED THAT THE HOUSE SUBCOMMITTEE APPROVED 3.2 MILLION DOLLARS FOR THREE VITALLY NEEDED CAPITAL IMPROVEMENTS PROJECTS. ALTHOUGH THE SUBCOMMITTEE DID NOT GRANT OUR TOTAL REQUEST, WE UNDERSTAND ITS POSITION. AS CRITICALLY IMPORTANT AS THE OTHER CAPITAL IMPROVEMENT PROJECTS ARE TO OUR ECONOMY AND THE

WELL BEING OF THE AMERICAN SAMOA PEOPLE, WE ARE WILLING TO ACCEPT THIS DECISION. WE UNDERSTAND THERE ARE SACRIFICES WHICH MUST BE MADE, AND THEREFORE, WE WILL DEFER THESE PROJECTS UNTIL A TIME IN THE FUTURE WHEN IT IS FEASIBLE FOR THE TERRITORY.

THERE IS, HOWEVER, ONE PROJECT WHICH I WISH TO BRING TO YOUR ATTENTION THAT CANNOT BE DEFERRED. IT CONCERNS THE PETROLEUM STORAGE FACILITIES IN AMERICAN SAMOA. I HAVE PROVIDED FOR YOUR REVIEW, A BRIEF PAPER DETAILING THE FACTS ON THIS MATTER.

THE PETROLEUM STORAGE FACILITIES IN AMERICAN SAMOA INCLUDE TWELVE STORAGE TANKS WITH A CAPACITY OF 218,500 BARRELS, NINE OF WHICH WERE BUILT ABOUT 1942. BECAUSE OF THEIR AGE AND CONDITION, THE TANKS ARE IN DIRE NEED OF REPAIRS, AND IN SOME CASES, REPLACEMENT. THE TANK FARM IS THE ONLY SOURCE OF FUEL FOR THE TERRITORY. IT FURNISHES GASOLINE, KEROSENE, DIESEL OIL, AND JET FUEL.

DURING 1987, TWO GASOLINE STORAGE TANKS AND ONE JET FUEL TANK RUPTURED, SPILLING OVER 2,000 BARRELS OF JET FUEL. 250 CITIZENS WERE EVACUATED FOR THREE DAYS FROM GATAIVAI VILLAGE WHICH IS IN CLOSE PROXIMITY TO THE TANK FARM. BECAUSE OF THE RUPTURES, THE VILLAGE CHIEF FILED SUIT TO PREVENT AND RESTRICT THE USE OF THE TANK FARM.

TO PREVENT THE USE OF THE TANK FARM WOULD MEAN ECONOMIC DISASTER FOR THE TERRITORY. THEREFORE, THE GOVERNMENT HAS TO EITHER RELOCATE THE TANK FARM OR THE VILLAGE, THE LATTER BEING THE MOST PRACTICAL.

THE GOVERNMENT MUST RELOCATE GATAIVAI VILLAGE IN THE IMMEDIATE FUTURE AND, WITHIN THREE YEARS, REPLACE MOST, IF NOT ALL, OF THE STORAGE TANKS. THE ESTIMATED COST TO DO THIS WOULD BE APPROXIMATELY EIGHT TO NINE MILLION DOLLARS.

LAST YEAR, THE UNITED STATES CONGRESS APPROPRIATED ONE MILLION DOLLARS FOR THE CLEAN-UP OF HAZARDOUS CONDITIONS CAUSED BY THE RUPTURED TANKS. ADDITIONALLY, THE AMERICAN SAMOA GOVERNMENT ADDED A SPECIAL FUEL CHARGE TO PAY FOR THE NECESSARY UPGRADING OF THE FACILITIES, PRIMARILY TO ELIMINATE THE MOST

SERIOUS HAZARDS AND COMPLY WITH ENVIRONMENT PROTECTION AGENCY STANDARDS.

IN GRANTING THE FUNDS TO CORRECT THE HAZARDOUS CONDITIONS AT THE TANK FARM, THE CONGRESS STATED THAT THE DEPARTMENT OF THE INTERIOR AND THE AMERICAN SAMOA GOVERNMENT SHOULD SUBMIT A REPORT "ON THE NEED FOR, COST OF, AND APPROPRIATE ROLE OF THE FEDERAL GOVERNMENT IN BEARING ANY COSTS INVOLVED IN SUCH REOLOCATIONS TO INSURE THE HEALTH AND SAFETY OF THE LOCAL RESIDENTS."

I BELIEVE CONGRESS SHOULD PLAY A ROLE IN THIS REGARD, AND CONTRIBUTE TOWARDS THE REPLACEMENT OF THE STORAGE TANKS AND THE RELOCATION OF THE GATAIVAI VILLAGE. FOR THIS REASON, I HUMBLY REQUEST 6.3 MILLION DOLLARS OF CAPITAL IMPROVEMENT PROJECT FUNDS FOR THE IMPLEMENTATION OF THIS VITAL AND URGENT PROJECT.

I CANNOT EMPHASIZE ENOUGH THE IMPORTANCE OF THE ABOVE CAPITAL IMPROVEMENT PROJECTS TO AMERICAN SAMOA. AS YOU DELIBERATE, I ASK YOU TO SERIOUSLY CONSIDER THE CONSEQUENCES OF YOUR DECISION, AND THE EFFECT IT WILL HAVE ON OUR ECONOMY. ANY DETERRENT WOULD NOT ONLY BE AN IMPEDIMENT OF OUR EFFORTS TO MOVE TOWARDS SELF SUFFICIENCY, BUT ALSO A REVERSAL OF THE PROGRESS WE HAVE ACHIEVED THUS FAR.

WHILE THE FUTURE LOOKS BRIGHT FOR AMERICAN SAMOA, WE MUST RESERVE ROOM FOR THE UNEXPECTED FORCES WHICH ARE BEYOND OUR CONTROL, BUT CRUCIAL TO THE ECONOMY OF OUR ISLANDS. AS SUCH, WE MUST CONTINUE TO VIGOROUSLY PURSUE TO FURTHER AS WELL AS DIVERSIFY OUR ECONOMIC EFFORTS. THEREFORE, WE MUST CONTINUE TO PROVIDE ESSENTIAL PUBLIC SERVICES, AND A STABLE HEALTHY ENVIRONMENT. I BELIEVE THAT WITH THE FINANCIAL ASSISTANCE REQUESTED FROM THE UNITED STATES GOVERNMENT, WE CAN ACCOMPLISH THIS, AND AT THE SAME TIME, ENABLE MANY SOCIAL AND ECONOMIC DEVELOPMENTS TO COME TO FRUITION.

I HAVE PAINTED A POSITIVE PORTRAIT OF AMERICAN SAMOA, AND I AM PROUD TO SAY THAT IT IS, TO A LARGE EXTENT, DUE TO COST EFFECTIVE GOVERNMENT. I ASSURE YOU THAT I AM COMMITTED TO CONTINUING ON THIS COURSE. HOWEVER, I NEED YOUR SUPPORT.

1987 WAS A PRODUCTIVE YEAR IN THE TERRITORY. IT APPEARS THAT 1988 PROMISES TO BE THE SAME. IT IS MY DESIRE TO MAKE 1989 AN ECONOMICALLY STRONGER YEAR. I CAN ACCOMPLISH THIS TASK WITH YOUR HELP.

TOGETHER, WE HAVE COMPLETED THE GROUNDWORK AND LAID THE FOUNDATION. NOW, IT IS ONLY A MATTER OF BUILDING UPON THAT FOUNDATION.

OUR POPULATION IS GROWING, AS SUCH, OUR NEEDS ARE GROWING. I ASK YOU TO SHARE MY BURDEN AND SHOULDER THE RESPONSIBILITY IN MEETING THE NEEDS OF THE PEOPLE OF AMERICAN SAMOA.

IT IS MY FOREMOST GOAL TO IMPROVE THE QUALITY OF LIFE IN AMERICAN SAMOA. I BESEECH YOU TO HELP ME MAKE THIS A REALITY. I BELIEVE THAT BY WORKING IN UNISON, WE CAN MAKE AMERICAN SAMOA A BETTER PLACE TO LIVE.

IN CLOSING, I WISH TO THANK YOU ONCE AGAIN FOR THE OPPORTUNITY TO TESTIFY TODAY.

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## AMERICAN SAMOA GOVERNMENT
## PETROLEUM STORAGE FACILITIES
## PAGO PAGO, AMERICAN SAMOA

The American Samoa Government owns the only petroleum storage facilities in American Samoa. The facilities include twelve storage tanks with a capacity of 218,500 barrels, nine of which were built circa 1942. Because of their age and condition, it is necessary that all of the 1942 vintage tanks be replaced within two to three years at a cost of a minimum of $5,965,000 in 1988 dollars. Three tanks of bolted construction were added by our petroleum supplier in 1982. As the bolted tanks were cheaper temporary construction, it is anticipated that they must be replaced within five to six years.

During 1987, two gasoline storage tanks ruptured. These cannot be repaired. In addition, the 27,500 barrels primary jet fuel storage tank ruptured spilling over 2,000 barrels, which required the evacuation of 250 citizens for three days and necessitated that one of the petroleum suppliers keep its tankers in port for 11 days in order to drain the ruptured tank and assure that the territory had an adequate jet fuel supply. Although the jet fuel tank was repaired and placed back in service, it must be replaced in the next year or two.

Because of the rupture of three tanks in the vicinity of a small village and the fact that residential homes are located within 100 feet of the storage tanks, the village chief has filed suit to prevent the use of the tank farm and/or restrict its use because it is a hazard and nuisance.

The resident community at Gataivai Village is composed of thirty-seven major families, numbering over two hundred and fifty individuals. The families reside in homes built on property under the trusteeship of Chief Tavai Kaleopa. The aforementioned property is approximately 4.2 acres in size. It is surrounded by three primary banks of fuel storage tanks holding over 9 million gallons of gasoline, kerosene, diesel oil and jet fuel.

In response to House Concurrent Resolution No. 17, the Department of Public Works conducted a safety study of the American Samoa Government tank farm. In their report dated June 14, 1983, it was alleged that the location of the tank farm, being adjacent to a heavily populated area, created an "extremely high risk in the event of a fire or major spill." The risk of fire was particularly deemed high due to the proximity of multiple sources of ignition, including, for example, open fires used for cooking or burning trash, smoking, hot surfaces such as automobile exhaust pipes, frictional heat and overhead electrical power lines. The report projected that upon the occurrence of a major fire, the entire tank farm could be enveloped, resulting in partial or total loss of all residences, structures, roads and utilities in the Gataivai area. Furthermore, Pago Harbor would become contaminated with fuel spills, presenting a fire hazard to all structures and boats within the harbor area. With specific reference to the residents of Gataivai, the study recommended that the possibility of relocating this community be seriously examined.

The preliminary cost estimated for relocation of the Gataivai residents is as follows:

1. 1.5 - 2 million dollars -- Construction of primary and secondary roads for development of a new residential area in a site presently without vehicular access.
2. 1.25 - 1.5 million dollars -- Condemnation or purchase of the residential structures and site improvements on the affected property at Gataivai.
3. .1 million dollars -- All administrative costs associated with implementation of the relocation project.

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2.85 - 3.6 million dollars - TOTAL COST

Due to our mountainous terrain, it is not practical to relocate the tank farm. The cost to relocate the village away from the hazard of being in close proximity to the tank farm is approximately $3,600,000. It is universally agreed that the proximity of the village is an extremely hazardous situation and one that the petroleum supplier's insurance carrier will not tolerate much longer.

The tank farm is the only source of fuel for the territory. It furnishes diesel fuel for the only utility generating electricity and all the industries in the territory. It also furnishes motor gasoline and supplies jet fuel to commercial airlines, the only form of transportation between American Samoa and the United States. American Samoa is a source of jet fuel for the Military Airlift Command, which purchases 45% of the jet fuel sold annually in American Samoa. Approximately 25,000 barrels of diesel are sold to the Navy annually and another 15,000 barrels of diesel and jet fuel are sold to foreign allied nations.

Presently, petroleum is primarily marketed in American Samoa by Pacific Resources, Inc., an independent petroleum Company headquartered in Honolulu, and Shell Company (Pacific Islands) Ltd., a foreign petroleum company based in Australia.

Two other foreign petroleum companies market small quantities in American Samoa (less than 15% of the market for selected customers). Because of the relatively small market in the territory, the enforcement of a continuing antitrust decree which limits the suppliers' activities, and the high unit cost of operations due the age of the tank farm, the suppliers are not willing to make major capital expenditures to upgrade or expand the tank farm which they do not own.. However, during the past few years, the suppliers have contributed over $300,000 annually for its maintenance.

Recently, the American Samoa Government added a special fuel charge to pay for the necessary upgrading of the facilities, primarily to eliminate the most serious hazards and comply with Environmental Protection Agency standards. The Government will fund this work at a cost of approximately $3,000,000 over a five year period. However, the revenue is not sufficient to fund major capital outlays. In 1987, the Congress appropriated $1,000,000 for the clean up of hazardous conditions caused by the ruptured tanks, most of which will be allocated to replace the two gasoline tanks and construct new beams and drainage ditches.

In the immediate future, the Government must relocate the village and, within three years, replace most, if not all, of the storage tanks at an estimated cost of $5,965,000. In granting the funds to correct the hazardous conditions at the tank farm, the Congress indicated that additional costs should be provided by non-federal interests, but the Congress stated that the Department of the Interior and the American Samoa Government should submit a report "on the need for, cost of, and appropriate role of the Federal Government in bearing any costs involved in such relocations to insure the health and safety of the local residents." Budget Reconciliation Act of 1987, H.R. 3545, 133 Cong. Reg. H 12696 (1987).

The American Samoa Government believes that the federal government should contribute towards the relocation of the village residences. The close proximity of the village to the tank farm has been an issue since the Department of the Navy acquired the land from the village and built the tanks, some of which surround the homes in question. If the government had acquired sufficient land, instead of two non-contiguous parcels with homes between the tanks, perhaps we would not be facing the relocation issue. The tanks built for the defense of the Pacific are now rusted and leaking. In 1951, the Navy abandoned Pago Pago as a base and, in 1961, pursuant to the Act of August 17, 1961, Public Law 87-158, 75 Statute 392, all Navy property was transferred to the American Samoa Government. In effect, the Government inherited the tank farm and its problems.

Although no longer a military base, American Samoa is the only United States territory and United States source of petroleum in the South Pacific with its increasing Soviet presence, the pressure for the "Zone of Peace, Freedom and Neutrality" and growing lack of instability and anti-western sentiment in many of the island nations. Therefore, the Congress would be justified in expending funds to assure the United States of a petroleum supply in the South Pacific, which it does not have today because of the age and condition of the territory's petroleum storage facilities.

Therefore, we are requesting $2,690,000 in fiscal year 1989 and will request $2,275,000 in fiscal year 1990, for a total of $4,965,000 for the upgrade and replacement of the storage tanks. In addition, we are requesting $3,600,000 for the village relocation. The Government will carry the burden to the best of its ability and take the responsibility for $3,000,000 of the amount needed and all future needs. This will put us on our feet and on the way to self sufficiency.

## STATEMENT OF A.P. LUTALI BEFORE SUBCOMMITTEE ON INSULAR AND INTERNATIONAL AFFAIRS, COMMITTEE ON INTERIOR AND INSULAR AFFAIRS, U.S. HOUSE OF REPRESENTATIVES, FEBRUARY 25, 1988

MR. CHAIRMAN AND HONORABLE MEMBERS OF THE COMMITTEE, THANK YOU FOR THE OPPORTUNITY TO ONCE AGAIN APPEAR BEFORE YOU AND TESTIFY ON THE STATE OF AFFAIRS IN THE TERRITORY OF AMERICAN SAMOA.

AS YOU ARE NO DOUBT WELL AWARE, THERE HAS BEEN MUCH CONCERN EXPRESSED OVER THE FINANCIAL CONDITION OF THE TERRITORY, BOTH HERE IN WASHINGTON AND BACK AT HOME. I AM PLEASED TO INFORM YOU TODAY THAT AMERICAN SAMOA IS ON SOUND FINANCIAL FOOTING AS A RESULT OF A STRONG PERFORMANCE IN FISCAL YEAR 1987. THIS IS CONTRARY, HOWEVER, TO WHAT WE INFORMED YOU OF WHEN WE APPEARED BEFORE YOU LAST YEAR AND EXPRESSED DEEP CONCERN OVER OUR THEN-PROJECTED 1987 REVENUES. CONSEQUENTLY, I WISH TO DEVOTE A CONSIDERABLE PORTION OF MY TESTIMONY TODAY TO THIS TOPIC TO ELABORATE ON HOW IT WAS THAT WE UNDERESTIMATED OUR FINANCIAL SITUATION A YEAR AGO. I WILL ALSO BE DISCUSSING OUR OUTLOOK FOR FY 88 AND, BRIEFLY, THE REQUIREMENT OF PUBLIC LAW 100-202 THAT THE AMERICAN SAMOA GOVERNMENT ("ASG") SUBMIT TO THE DEPARTMENT OF INTERIOR ("DOI") A PLAN FOR IMPROVING COLLECTION OF REVENUES AND CONTROLLING OF EXPENDITURES

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## FY 87 REVIEW

IN DISCUSSING OUR FY 87 PERFORMANCE, IT IS APPROPRIATE TO RECAP WHERE WE STOOD ONE YEAR AGO OUR PRELIMINARY FY 88 BUDGET, SUBMITTED TO THE OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS ("OTIA") IN MAY OF 1986, PROJECTED LOCAL REVENUES OF $30.5 MILLION. THIS FOLLOWED ON FY 87 PROJECTIONS OF $34.3 MILLION. AS WE EXPLAINED TO YOU LAST YEAR, THESE WERE BOTH OVERLY-OPTIMISTIC ASSUMPTIONS REFLECTING BUDGET SUMISSIONS WHICH DID NO MORE THAN INCREASE PROJECTED REVENUES TO MEET THE DESIRED EXPENSE LEVEL.

NEAR THE END OF CALENDAR 1986 OMB ACTED ON THESE OPTIMISTIC PROJECTIONS BY RESCINDING $5.4 MILLION OF THE

TERRITORY'S FY 88 OPERATIONS FUNDING. THIS ACTION CAUGHT BOTH OTIA AND ASG BY COMPLETE SURPRISE. IMMEDIATE CONSULTATIONS WERE HAD WITH OTIA AND CONGRESSIONAL STAFF, WHO WERE EQUALLY CONCERNED OVER THE VALIDITY OF OUR PROJECTED REVENUES. WE BROUGHT NEW MANAGEMENT TO OUR BUDGET OFFICE INCLUDING AN OTIA-FUNDED BUDGET AND FISCAL PLANNING SPECIALIST. WE REVIEWED AND REVISED OUR FY 87 AND 88 PROJECTIONS. THESE WERE REFLECTED IN THE SUBMISSIONS WE PROVIDED YOU A YEAR AGO, SHOWING REVISED PROJECTED LOCAL REVENUE FORECASTS OF $26.5 MILLION FOR FY 87 AND $20.5 MILLION FOR FY 88.

BY APRIL OF LAST YEAR OUR CONCERN HAD GROWN TO THE POINT WHERE WE WERE COMPELLED TO SEEK A SUPPLEMENTAL APPROPRIATION FOR FY 1987. THIS CAUSED GREAT CONSTERNATION HERE IN WASHINGTON, BOTH IN CONGRESS AND AT THE DEPARTMENT OF INTERIOR. WE DID NOT LIKE IT MAKING A SUPPLEMENTAL REQUEST EITHER. HOWEVER, GIVEN THE INFORMATION WE HAD AVAILABLE AT THE TIME, WE WOULD DO IT AGAIN.

OUR REVISED REVENUE PROJECTIONS OF A YEAR AGO WERE SOUND. WHAT HAPPENED WAS A SERIES OF FORTUITOUS EVENTS WHICH ALL COMBINED IN A POSITIVE WAY TO BRING AMERICAN SAMOA ITS STRONGEST YEAR EVER WITH REGARD TO CURRENT LOCAL REVENUE GENERATION. THOSE EVENTS INCLUDED A SIGNIFICANT SURGE IN ECONOMIC ACTIVITY WHICH RESULTED IN INCREASED (OVER REVISED PROJECTIONS) COLLECTIONS OF CORPORATE, INDIVIDUAL AND EXCISE TAXES AND WHICH BROUGHT OTHER ASG REVENUE STREAMS UP; IMPROVED FISCAL MANAGEMENT RESULTING IN GREATER SPECIAL GRANTS ACCOUNTABILITY AND THE CLOSING OUT OF MANY LOCAL CIP PROJECTS; A REVERSAL OF PAST LOSSES IN THE ENTERPRISE FUNDS, ELIMINATING A HISTORICAL DRAIN ON THE GENERAL FUND; IMPROVED COLLECTION EFFORTS ACROSS THE BOARD; AND COST CUTTING MEASURES WHICH BROUGHT THE GENERAL FUND IN $1.8 MILLION BELOW BUDGET.

THE ULTIMATE FISCAL IMPACTS OF THESE EVENTS WERE NOT THINGS TERRITORIAL OFFICIALS WERE REASONABLY ABLE TO PREDICT ONE YEAR AGO. WE DID NOT KNOW OF CHANGES OCCURRING IN SOME KEY EXTERNAL ECONOMIC FACTORS WHICH SIGNIFICANTLY AFFECTED OUR ECONOMY. WE DID NOT KNOW WHAT THE NET IMPACT OF IMPROVED GRANT AND CIP ACCOUNTABILITY WOULD BE.

WE HAD THEN, AS WE DO NOW, LIMITED CAPABILITY IN THE AREA OF ECONOMIC FORECASTING.

I WOULD NOW LIKE TO ADDRESS SPECIFIC ASPECTS OF THE GOVERNMENT'S FISCAL PERFORMANCE, INCLUDING THE RISE IN THE LEVEL OF ECONOMIC ACTIVITY, AND ITS TRANSIENT NATURE.

## ECONOMIC FACTORS

### The tuna industry

THE MOST SIGNIFICANT IMPACT UPON THE GOVERNMENT'S FY 87 FISCAL PERFORMANCE AROSE OUT OF CHANGING CONDITIONS IN THE TUNA INDUSTRY. COMMENCING LATE IN 1986 AND RUNNING THROUGH 1987 WORLDWIDE CONSUMER DEMAND GREW WHILE THE SUPPPLY REMAINED RELATIVELY CONSTANT. THIS LED TO A GENERAL RISE IN THE WHOLESALE PRICE OF A CASE OF TUNA. THERE WAS NO GENERAL RISE IN THE PRICE OF THE RAW TUNA, HOWEVER, AS AT THAT TIME THE SUPPLY CONSTRAINT LIE WITH THE CANNERS (BOTH FOREIGN AND DOMESTIC) WHO WERE ALREADY PACKING AT OR NEAR MAXIMUM CAPACITY. IT WAS NOT UNTIL THE LAST QUARTER OF 1987, WITH THE DECLINE OF THE INDIAN OCEAN TUNA FISHERY, THAT RAW TUNA PRICES START TO RISE. THUS WITH A RISE IN WHOLESALE PRICES FOR MOST OF THE YEAR AND CONSTANT SUPPLY PRICES, THE TUNA CANNERIES SHOWED VERY STRONG PROFIT MARGINS IN 1987.

WE WISH CONGRESS TO NOTE THAT THERE ARE MANY UNPREDICTABLE VARIABLES WHICH CAN HAVE MAJOR CONSEQUENCES FOR THE HEALTH OF THE INDUSTRY. AS MENTIONED ABOVE, LAST SUMMER WHEN THE SKIPJACK TUNA DISAPPEARED FROM THE INDIAN OCEAN THE PRICES OF TUNA LANDED AT PAGO PAGO ROSE TO NEAR THE SAME LEVELS AS IN THE EARLY 80's. ANOTHER MERCURY SCARE LIKE THAT IN THE MID-80's CAN SEVERELY DEPRESS PRICES. A DROP IN THE PRICE OF CORN WILL LOWER THE PRICE OF BEEF, WHICH THEN MAKES HAMBURGER A LOWER-COST ALTERNATIVE SOURCE OF PROTEIN FOR THE AMERICAN CONSUMER, THUS DRIVING DOWN TUNA PRICES.

AS WILL BE SEEN BELOW, TOTAL TAX REVENUES IN AMERICAN SAMOA ARE VERY CLOSELY TIED TO THE ECONOMICS OF THE TUNA INDUSTRY. WHILE IT IS NICE TO GAZE INTO ONE'S CRYSTAL BALL WITH CONFIDENCE, I AM AFRAID THAT TO DO SO WITH THE TUNA INDUSTRY IS TO BE NAIVE, AT BEST.

**Hurricane Tusi**

ANOTHER FACTOR IN OUR ECONOMIC GROWTH WAS THE PUMPING INTO THE ECONOMY OF MILLIONS OF DOLLARS OF HURRICANE TUSI RECOVERY MONIES. THE LOCAL GOVERNMENT SPENT APPROXIMATELY $7.3 MILLION IN ITS EFFORTS, THE FUNDS COMING FROM FEMA, INSURANCE PROCEEDS, AND LOCAL REVENUES. IN ADDITION, APPROXIMATELY $2 MILLION IN DONATED FOODSTUFFS AND HOUSEHOLD ITEMS FREED UP ADDITIONAL DISPOSABLE INCOME WHICH WE BELIEVE WAS USED FOR PURCHASES OF MAJOR CONSUMER ITEMS WHICH GENERATE HIGHER MARGINS OF PROFIT FOR LOCAL RETAILERS. THE LOCAL CONSTRUCTION INDUSTRY BOOMED. NEW JOBS WERE GENERATED AND EXISTING PERSONNEL WORKED MORE OVERTIME LEADING TO INCREASES IN OVERALL INDIVIDUAL INCOME.

WHILE WE KNEW ONE YEAR AGO THAT WE WOULD BE RECEIVING HURRICANE RECOVERY MONIES, FRANKLY AT THAT POINT IN TIME WE WERE A BIT MORE CONCERNED WITH WHETHER OR NOT WE HAD THE WATER AND POWER WORKING. BY APRIL OF LAST YEAR WE HAD A BETTER SENSE OF WHAT TOTAL RECOVERY FUNDING WOULD BE. HOWEVER, I AM AFRAID WE DID NOT THEN, NOR DO WE NOW, HAVE THE TOOLS AVAILABLE TO DETERMINE WHAT IMPACT THAT WOULD HAVE HAD UPON TOTAL LOCAL REVENUE GENERATION. WE HAVE SOUGHT TECHNICAL ASSISTANCE FROM OTIA TO HELP US DEVELOP OUR SKILLS IN THIS AREA, BUT IT HAS YET TO MATERIALIZE.

THE IMPACT THESE EXTERNAL EVENTS HAD UPON OUR ECONOMY CANNOT BE OVERSTATED. NOR CAN THE TEMPORAL NATURE OF EACH.

TAX REVENUES

EXHIBIT "A" SHOWS OUR ACTUAL FY 87 TAX REVENUES AND COMPARES THE FOLLOWING: ACTUAL FY 86 REVENUES, THE ORIGINAL FY 87 BUDGETED REVENUE PROJECTIONS, AND OUR FY 87 REVISIONS OF ONE YEAR AGO.

AS CAN BE SEEN, OUR ORIGINAL PROJECTIONS WERE EXTREMELY OPTIMISTIC IN COMPARISON WITH OUR ACTUAL FY 86 PERFORMANCE (WHICH WAS CONSISTENT WITH FY 85). UPON LEARNING OF THE OMB RESCISSION, A THOROUGH ANALYSIS OF PROJECTED FY 87 TAX REVENUES WAS UNDERTAKEN BY THE MANAGER OF OUR LOCAL TAX OFFICE. HIS WORK WAS BASED ON CERTAIN UNDERLYING ASSUMPTIONS WHICH WERE VALID AT THE TIME

BUT WHICH IN RETROSPECT PROVED TO BE PARTIALLY ERRONEOUS. FOR EXAMPLE, OTHER THAN NOTING THE SUSPECTED IMPACT OF A STREAM OF INCOME FROM THE HURRICANE TUSI RECOVERY EFFORT, WHICH A YEAR AGO WAS NOT PREDICTABLE IN AMOUNT OR TIMING, THERE WERE NO ASSUMPTIONS MADE, EITHER UP OR DOWN, ABOUT THE GENERAL LEVEL OF ECONOMIC ACTIVITY IN THE TERRITORY. THE PRICE CHANGES IN THE TUNA INDUSTRY WERE NOT EVEN KNOWN TO US AT THAT TIME, LET ALONE SUSCEPTIBLE OF MAKING FINITE PROJECTIONS AS FAR AS IMPACT ON OUR REVENUE STREAM. ALSO, AFTER FACING THE CONSEQUENCES OF OUR ORIGINAL FY 87 AND 88 PROJECTIONS, A DOSE OF CONSERVATISM WAS IN ORDER.

I WILL ADDRESS PARTICULAR TAX REVENUES BY LINE ITEM:

**Corporate taxes**

TERRITORIAL CORPORATE TAX REVENUES ARE OVERWHELMINGLY DOMINATED BY THE TUNA CANNERIES. IN 1986 FULLY 61 PERCENT OF ALL CORPORATE TAX REVENUES WERE PAID BY THE CANNERIES. IN 1987 THE FIGURE ROSE TO 67 PERCENT. WHAT IS NOTABLE IS THAT ALMOST ALL OTHER CORPORATE TAXES ARE COLLECTED FROM INDUSTRY-DEPENDENT BUSINESSES: THE PETROLEUM SUPPLIERS AND JOBBERS, THE SHIPPING AND STEVEDORING COMPANIES, AND SERVICE AND SUPPLY PROVIDERS.

AS CAN BE SEEN FROM EXHIBIT "A", OUR REVISED PROJECTIONS WERE $.6 MILLION HIGHER THAN OUR FY 86 ACTUALS. THIS WAS REASONABLE, GIVEN HISTORICAL GROWTH IN THE INDUSTRY AND OUR KNOWLEDGE OF INCREASED PRODUCTION AT BOTH CANNERIES. THE CHANGES IN THE ECONOMICS OF THE TUNA INDUSTRY MENTIONED ABOVE, HOWEVER, RESULTED IN CANNERY TAX REVENUES MORE THAN DOUBLING, WHILE OTHER CORPORATE TAX REVENUES GREW BY ALMOST AS MUCH. FURTHERMORE, ONE CANNERY CONSIDERABLY OVERPAID ITS TAX OBLIGATION IN 1984, RESULTING IN NO CASH RECEIPTS TO THE GOVERNMENT IN 1985 AND 86. DUE TO A LACK OF HISTORICAL KNOWLEDGE ABOUT THE IMPACT OF A PLANT EXPANSION UPON THEIR OPERATIONS, WE COULD ONLY GUESS AT WHAT POINT IN TIME DURING FY 87, IF AT ALL, THIS TAXPAYER'S OBLIGATIONS WOULD EXCEED ITS PRE-PAYMENTS. IN FACT, THEIR FIRST AND ONLY PAYMENT CAME DURING THE FOURTH QUARTER OF FY 87.

THE COMBINATION OF THESE FACTORS LED TO AN OVERALL JUMP OF $3.8 OVER OUR FY 86 ACTUAL PERFORMANCE AND $3.2

MILLION OVER THE FY 87 REVISED PROJECTIONS. THIS MORE THAN TWO-FOLD INCREASE IN ACTUAL CORPORATE TAX REVENUES WAS SIMPLY NOT A PREDICTABLE EVENT.

ONE MIGHT ARGUE THAT BY LOOKING AT CANNERY QUARTERLY RETURNS WE SHOULD HAVE RECEIVED SOME INDICATION OF MID-YEAR TRENDS. UNFORTUNATELY, THE CANNERIES ARE HISTORICALLY INCONSISTENT IN THIS REGARD, OVERPAYING ONE QUARTER, PAYING NOTHING THE NEXT, AND SO ON. JUST NOTE THE EXAMPLE CITED ABOVE AS TO AN OVERPAYMENT BY ONE CANNERY BACK IN 1984. QUARTERLY PAYMENTS HAVE NOT BEEN PARTICULARLY RELIABLE INDICATORS IN THE PAST, NOR DO WE CONSIDER THEM TO BE RELIABLE NOW.

**Individual taxes**

THE VARIATIONS IN INDIVIDUAL INCOME TAX FIGURES ARE LARGELY TIED TO THE IMPACT OF THE TAX REFORM ACT AND ITS TIMING. OUR REVISED FY 87 PROJECTION REFLECTED AN ANTICIPATED DROP OF $1.2 MILLION IN INDIVIDUAL TAX RECEIPTS DUE TO THE FEDERAL LEGISLATION AND ITS MIRROR IMPACT UPON THE TERRITORY. WE BELIEVE THIS FIGURE TO STILL BE VALID. HOWEVER, OUR REVISED PROJECTION ASSUMED FULL AND TIMELY COMPLIANCE WITH THE NEW WITHHOLDING SCHEDULES. AS I AM SURE YOU ARE WELL ADVISED, THAT DID NOT EVEN HAPPEN IN THE UNITED STATES. IT CERTAINLY DID NOT HAPPEN IN AMERICAN SAMOA. WE THEREFORE EXPECT TO FEEL THE IMPACT OF THE TAX REFORM ACT IN FY 88, COME APRIL WHEN WE FACE TAX REFUND TIME. FORTUNATELY, IT IS ALREADY ACCOUNTED FOR IN OUR FY 88 BUDGET. BEYOND THIS FACTOR, OUR INCREASE IN RECEIPTS OF $.3 MILLION WAS DUE TO IMPROVED AUDIT EFFORTS AND THE INCREASED ACTIVITY IN OUR ECONOMY.

**Sales tax**

AS WE ORIGINALLY ANTICIPATED RECEIVING $2 MILLION PER ANUM FROM THIS TAX, THAT FIGURE WAS SO REFLECTED IN OUR ORIGINAL FY 87 BUDGET SUBMISSION. UPON NOTING $.4 MILLION IN QUARTERLY FY 86 REVENUES RESULTING FROM MID-YEAR IMPLEMENTATION OF THIS NEW TAX, WE SCALED OUR REVISED PROJECTION BACK TO $1.6 MILLION. WE HIT THAT FIGURE RIGHT ON IN OUR ACTUAL FY 87 RECEIPTS.

**Excise taxes**

MUCH OF THE JUMP IN THIS CATEGORY OVER ACTUAL FY 86 REVENUES CAN BE ATTRIBUTED TO IMPROVEMENTS IN OUR LOCAL

CUSTOMS DIVISION. THESE IMPROVEMENTS AROSE FROM OUR 1985 TRANSFER OF CUSTOMS FROM PORT ADMINISTRATION TO TREASURY COUPLED WITH ON-SITE TECHNICAL ASSISTANCE RECEIVED FROM U.S. CUSTOMS DURING FY 86.

THE BIGGEST SINGLE JUMP OCCURRED IN EXCISE TAXES COLLECTED FOR BEER, ALCOHOL AND TOBACCO, WHICH INCREASED $.4 MILLION. THIS IS LARGELY DUE, HOWEVER, TO THE PRIVATIZATION OF THE LIQUOR STORE AND REFLECTS A SHIFT OF REVENUES FROM OTHER SOURCES. THE REMAINDER OF THE INCREASE WAS LARGELY ACROSS-THE-BOARD AND CAN BE TIED TO THE INCREASED ECONOMIC ACTIVITY IN THE TERRITORY.

**Extraordinary tax revenues**

THIS ITEM REFERS TO NON-RECURRING TUNA CANNERY AUDIT SETTLEMENTS. THE DIFFERENCES BETWEEN THE ORIGINAL FY 87 AND FY 88 REVENUE PROJECTIONS, AND BETWEEN THE FY 87 AND 88 REVISIONS, RESULTED FROM ANTICIPATING $5 MILLION IN THIS CATEGORY FOR FY 87 AND NONE FOR FY 88. WHAT THE GOVERNMENT FINALLY RECEIVED IN FY 87 WAS JUST OVER $2.4 MILLION FOR AUDIT YEARS IN THE EARLY 1980's. THIS WAS A NEAR THING, HOWEVER, AS THE ENTIRE SUM WAS RECEIVED DURING THE LAST MONTH OF THE FISCAL YEAR, AND MOST OF IT FROM A SOURCE WE DID NOT ANTICIPATE AT ALL.

TRYING TO FORECAST NUMBERS FOR THIS CATEGORY OF REVENUES IS VERY DIFFICULT, AS THEY ARE OFTEN CLOSELY TIED TO ACTIONS TAKEN BY THE INTERNAL REVENUE SERVICE; WE DO NOT FIND OUT ABOUT THE IMPACT UPON US UNTIL SOME TIME LATER.

WE CONTINUE TO PROJECT NO EXTRAORDINARY TAX REVENUES DURING FY 88.

**NON-TAX REVENUES**

THIS CATEGORY REFERS TO SUCH ITEMS AS LICENSES AND PERMITS, CHARGES FOR SERVICES, FINES AND FEES, AND MISCELLANEOUS (GENERALLY, NON-RECURRING BUT INCLUDING INTEREST INCOME) REVENUES. FY 86 REVENUES IN THIS CATEGORY AMOUNTED TO $5.9 MILLION. FOR FY 87 THE ACTUAL REVENUES WERE $6.7 MILLION

THE MOST NOTABLE JUMP OCCURRED IN CHARGES FOR SERVICES DUE TO INCREASED PORT ACTIVITY AND IMPROVEMENTS IN WATER UTILITY BILLINGS. OTHERWISE, THE INCREASED ECONOMIC ACTIVITY IN THE COMMUNITY IS THE BASIS FOR GROWTH IN THIS AREA.

## IMPROVED FISCAL MANAGEMENT

ALSO HAVING A SIGNIFICANT IMPACT UPON THE GOVERNMENT'S FINANCIAL PICTURE WERE IMPROVEMENTS IN FINANCIAL MANAGEMENT CAPABILITIES, AFFECTING BOTH THE REVENUE AND EXPENDITURE SIDES OF THE BALANCE SHEET. THE PROGRESS CAN BE TIED TO THE NEW OTIA TECHNICAL ASSISTANCE-FUNDED WANG COMPUTER AND DILOG SYSTEM, IMPROVED TREASURY USE OF THESE ASSETS, AND A GREATER OVERALL EFFORT TO UPGRADE OUR FISCAL MANAGEMENT SKILLS.

AS AN EXAMPLE OF THESE EFFORTS, ASG WAS ABLE TO RESOLVE SOME PRIOR YEAR GRANT OVERRUNS IN FY 87. SUPPLEMENTAL GRANT AWARDS WERE REQUESTED AND EXPENDITURES WERE TRANSFERRED FROM OVERRUN GRANTS TO OTHER GRANTS. THIS RESULTED IN THE GENERATION OF $.4 MILLION WHICH WAS TRANSFERRED TO THE GENERAL FUND. IN FY 86 THE AUDITORS AND THE GOVERNMENT HAD BEEN SO UNSURE OF THE STATUS OF THE COLLECTIBILITY OF GRANT RECEIVABLES THAT THE AUDIT OPINION WAS QUALIFIED AND ASG RESERVED $1 MILLION AGAINST POSSIBLE PROBLEMS IN THE COLLECTION OF THESE OLD GRANTS. IN FY 87 VIRTUALLY ALL OF THE PROBLEMS WERE RESOLVED IN THE GOVERNMENT'S FAVOR, THE AUDIT OPINION WAS CLEARED, AND WE WERE ABLE TO TRANSFER THE $1 MILLION RESERVE TO THE GENERAL FUND.

AS ANOTHER EXAMPLE OF OUR IMPROVED EFFORTS A NUMBER OF OLD LOCAL CAPITAL IMPROVEMENT PROJECTS WERE CLOSED OUT. A BALANCE OF UNSPENT FUNDS OF $.5 MILLION WAS ULTIMATELY TRANSFERRED BACK TO THE GENERAL FUND.

## ENTERPRISE FUNDS PERFORMANCE

IMPROVED PERFORMANCE, ALMOST ACROSS THE BOARD, IN ENTERPRISE FUND ACTIVITIES IS ATTRIBUTABLE TO IMPROVED MANAGEMENT AND OPERATIONS IN ALL AREAS. THIS RESULTED IN A REVERSAL OF PREVIOUS YEARS' ROUTINE ADVANCES FROM THE GERERAL FUND TO THE ENTERPRISE ACTIVITIES.

THE MOST SIGNIFICANT CHANGE OCCURED AT THE AMERICAN SAMOA POWER AUTHORITY (ASPA). AS I AM SURE YOU ARE ALL WELL AWARE, ASPA HAS AN HISTORICALLY DISMAL FINANCIAL RECORD. STEPS WERE TAKEN TO RECTIFY THIS SITUATION IN MID-FY 86 WHEN A NEW EXECUTIVE DIRECTOR WAS APPOINTED. UNFORTUNATELY, NEW MANAGEMENT FACED MAJOR BREAKDOWNS OF

EQUIPMENT THREE MONTHS LATER, LEADING TO MONTHS OF POWER RATIONING WHICH RESULTED IN REDUCED REVENUES. FY 87 BROUGHT US OUR FIRST FULL YEAR OF NEW MANAGEMENT AND RELIABLE POWER AS WE BROUGHT ON LINE NEW GENERATORS TO PROVIDE THE POWER WE HAVE YET TO COAX OUT OF OUR FEDERALLY-FUNDED GAS TURBINE SYSTEM. IN FY 86 ASPA LOST $1.8 MILLION; IN FY 87 ASPA SHOWED A PROFIT OF $.8 MILLION. THIS $2.6 MILLION TURNAROUND, COUPLED WITH OUR CURRENT RELIABILITY IN POWER GENERATION, SPEAKS WELL OF LOCAL MANAGEMENT.

IT MUST BE NOTED, HOWEVER, THAT ASPA IS NOT OUT OF THE WOODS YET. THE HIGH SPEED GENERATORS WE BROUGHT ON AS AN EMERGENCY MEASURE IN 1986 (AND SUCCESSFULLY FINANCED OUT OF ASPA REVENUES) STILL HAVE TO BE REPLACED BY LARGER, SLOW SPEED UNITS.

IN THE APPROPRIATIONS HEARINGS LAST APRIL OUR ENTERPRISE PERFORMANCE WAS SEVERELY CRITICIZED BY OTIA AND CONGRESS. I AM PROUD OF OUR IMPROVEMENTS IN THIS IMPORTANT AREA AND CAN ONLY SAY THAT WHEN EARLIER EFFORTS HAVE NOT PRODUCED RESULTS, BY THIS OR PREVIOUS ADMINISTRATIONS, IT IS DIFFICULT TO SPEAK OPTIMISTICALLY ABOUT WHY CURRENT EFFORTS ARE GOING TO BE ANY DIFFERENT. FORTUNATELY, IN OUR CASE THEY WERE.

## REDUCED EXPENDITURES

THE ASG, FOR THE FIRST TIME IN MANY, MANY YEARS, COMPLETED THE FISCAL YEAR UNDER BUDGET ON THE EXPENDITURE SIDE, WITHOUT THE AID OF A SUPPLEMENTAL LOCAL APPROPRIATION. A LARGE PART OF THE SAVING IS ATTRIBUTED TO EFFECTIVE AGENCY IMPLEMENTATION OF FISCAL CONTROL MEASURES PURSUANT TO LOCAL EXECUTIVE ORDER 002-87, A COPY OF WHICH IS ATTACHED AS EXHIBIT "B".

THE MOST SIGNIFICANT SAVINGS DOLLAR-WISE OCCURRED AS A RESULT OF REDUCED PERSONNEL COSTS, A TREND WE INFORMED YOU OF LAST APRIL IN RESPONSE TO QUESTIONS RAISED AT THE SENATE APPROPRIATIONS HEARINGS. THIS FREEZING OF INCREMENTS AND HIRING WAS SUCCESSFUL, RESULTING IN NET PERSONNEL SAVINGS OF $1.5 MILLION. OTHER SAVINGS OCCURRED ALMOST ACROSS-THE-BOARD. THE ONLY AGENCY TO RECORD AN OVERRUN WAS THE DEPARTMENT OF HEALTH, AND ITS EXCESS SPENDING WAS TIED TO AN INCREASED COSTS IN OFF-ISLAND MEDICAL REFFERRALS.

OUR EFFORTS IN FY 87 NEED TO BE LOOKED AT IN THE CONTEXT OF PRIOR YEARS' PERFORMANCE. EXHIBIT "C" SHOWS BUDGETED VERSUS ACTUAL EXPENDITURES FOR THE YEARS FY 85, 86 AND 87. AS CAN BE READILY SEEN, IN EACH OF THE TWO PAST FISCAL YEARS THE GOVERNMENT HAS IMPROVED UPON THE PREVIOUS YEAR'S PERFORMANCE. THIS IS A TREND RESULTING FROM IMPLEMENTATION OF THE NEW FINANCIAL MANAGEMENT SYSTEM COUPLED WITH MORE EFFECTIVE COORDINATION BETWEEN RESPONSIBLE AGENCIES.

**SUMMARY--FY 87 REVIEW**

WE RECOGNIZE FULLY THE CONCERNS OF CONGRESS AND DOI OVER THE FACT THAT ASG's RECENT FISCAL FORECASTING ABILITY HAS BEEN SOMETHING LESS THAN PRECISE. ON THE OTHER HAND, NOTE THAT AS WELL AS WE DID IN FY 87, WE STILL CAME IN $2.5 MILLION BELOW WHAT WE HAD BUDGETED FOR ON THE REVENUE SIDE. THE MAJOR JUMP IN REVENUES WAS DIRECTLY ATTRIBUTABLE TO THE DYNAMICS OF THE TUNA INDUSTRY WHICH WERE BEYOND OUR CONTROL AND ARE INHERENTLY OF SUCH A TRANSITORY NATURE AS TO DEFY ACCURATE FORECASTING.

WE HOPE CONGRESS AND DOI CAN APPRECIATE THAT IN A MICRO-ECONOMY SUCH AS OURS IT DOES NOT TAKE MUCH BY WAY OF EXTERNAL FORCES TO CREATE NOT A RIPPLE, BUT A TIDAL WAVE EFFECT. THE PRICE OF TUNA AND A HURRICANE NAMED TUSI DID JUST THAT TO US.

WE ALSO HOPE, AND TRUST, THAT CONGRESS AND DOI ARE AS HAPPY AS WE ARE THAT WE DID NOT STAND HERE ONE YEAR AGO, PREDICT A $2 MILLION SURPLUS AND WIND UP WITH A $10 MILLION DEFICIT.

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## FY 88 OUTLOOK

AS WELL AS WE DID IN FY 87, WE MUST HESITATE TO BE OVERLY OPTIMISTIC IN FY 88. AS MENTIONED ABOVE, THE TUNA INDUSTRY PRICING STRUCTURE (RAW TUNA VERSUS WHOLESALE PRICES) SEEMS TO BE STABILIZING. ALSO, WE EXPECT NO EXTRAORDINARY REVENUES FROM THIS SOURCE IN THE CURRENT FISCAL YEAR. ADDITIONAL HURRICANE TUSI MONIES WILL CONTINUE TO FILTER INTO THE ECONOMY, HOWEVER THE IMPACT

SHOULD BE LESS NOTICEABLE THAN LAST YEAR. ON THE OTHER HAND, THIS SHOULD BE A GOOD YEAR FOR THE LOCAL CONSTRUCTION INDUSTRY AS WORK ON THE EXECUTIVE OFFICE BUILDING CONTINUES (THE LOW BIDDER HAS COMMITTED TO A SUBSTANTIAL LOCAL LABOR AND LOCAL SUBCONTRACTING COMPONENTS).

THE FINAL FY 88 BUDGET IS BASED ON MID-YEAR FY 87 REVENUE FIGURES, AND AS SUCH IS CONSERVATIVE GIVEN OUR ACTUAL FY 87 PERFORMANCE. THIS IS PARTIALLY OFFSET BY THE RECENT ACTION TAKEN TO RAISE THE PAY OF ALL GOVERNMENT EMPLOYEES. THE GREATEST JUMP IN PAY WENT TO NURSES AT THE HOSPITAL AND PUBLIC SAFETY OFFICERS, TWO LONG-UNDERPAID GROUPS OF DEDICATED WORKERS. THE REMAINDER OF GOVERNMENT EMPLOYEES' PAY INCREASES IN REALITY DID NO MORE THAN ROUGHLY EQUALIZE WHAT THEY SHOULD HAVE BEEN EARNING HAD INCREMENTS NOT BEEN FROZEN FOR MOST OF THE WORKFORCE FOR THE LAST TWO YEARS. THE TOTAL PROJECTED COST OF THE PAY RAISE IS $2.3 MILLION.

FOR THE FIRST QUARTER OF FY 88 THE GOVERNMENT'S EXPENDITURES WERE SLIGHTLY BELOW BUDGET. ON THE REVENUE SIDE THE NUMBERS ARE STILL BEING TOTALLED AT THE TIME OF THIS PRESENTATION, HOWEVER OUR REVENUE PROJECTIONS APPEAR TO BE ROUGHLY ON TARGET.

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## PUBLIC LAW No. 100-202

## PLAN TO IMPROVE COLLECTION OF REVENUES AND CONTROL EXPENDITURES

AS A CONDITION OF THE REINSTATEMENT OF FY 88 FUNDS WHICH WERE ORIGINALLY RESCINDED BY OMB, THE ASG IS MANDATED TO SUBMIT A PLAN TO CONGRESS WITHIN 90 DAYS OF THE PRESIDENT SIGNING THE APPROPRIATIONS BILL WHICH ADDRESSES OUR EFFORTS TO IMPROVE REVENUE COLLECTIONS AND REDUCE EXPENDITURES. BECAUSE OF THE TIMING OF THIS HEARING IT IS PREMATURE FOR US TO PRESENT A COMPLETED PLAN TO YOU AT THIS TIME.

WE WOULD LIKE TO POINT OUT, HOWEVER, THAT WE ARE PLEASED AT BEING INVOLVED WITH THIS INITIATIVE AS IT WILL HELP US TO FORMALIZE THE SUCCESSFUL STEPS WE HAVE TAKEN OVER THE LAST TWO YEARS IN THESE AREAS.

MUCH OF WHAT HAS TO BE DONE TO IMPROVE COLLECTIONS AND CONTROL EXPENDITURES IS ALREADY INSTITUTIONALIZED IN LAW OR IN REGULATION. WHAT HAS BEEN LACKING IN THE PAST HAS BEEN THE TOOLS AND EXPERTISE NECESSARY TO EFFECTIVE IMPLEMENTATION. OUR NEW FINANCIAL MANAGEMENT SYSTEM, COUPLED WITH EVER-IMPROVING SKILLS OF THE PEOPLE RUNNING IT AND USING IT, HAVE COMBINED TO TAKE US A LONG WAY IN THE RIGHT DIRECTION. INCREASED AUDIT AND COLLECTION ACTIVITIES ARE REAPING CASH-FLOW BENEFITS. STRONG MANAGEMENT AT TREASURY AND THE BUDGET OFFICE COMBINED WITH BETTER INTER-AGENCY COORDINATION IS MAKING THE MONITORING OF EXPENDITURES MORE EFFECTIVE.

TO TRY TO ALLAY CURRENT CONCERNS OF CONGRESS PERTAINING OVERALL TRENDS IN THE GOVERNMENT'S FISCAL PERFORMANCE I ATTACH AS EXHIBITS "D" AND "E" STATEMENTS OF THE GENERAL FUND BALANCE AND DEFICIT, RESPECTIVELY, FOR THE LAST TEN YEARS. AS CAN BE SEEN, THE WILD JUMPS OF THE EARLY 1980's RESULTING FROM POOR REVENUE COLLECTIONS FOLLOWED BY ENORMOUS TUNA CANNERY AUDIT SETTLEMENTS HAVE BEEN FOLLOWED BY A PERIOD OF RELATIVELY CONSTANT OVERALL PERFORMANCE. TO THE EXTENT THE LOCAL ECONOMY REMAINS SOUND WE BELIEVE THESE TRENDS WILL CONTINUE. THIS, OF COURSE, WILL REQUIRE THE CONTINUING HEALTH AND PROSPERITY OF THE TUNA INDUSTRY, AND ITS COMMITMENT TO DOING BUSINESS IN THE TERRITORY.

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## CONCLUDING REMARKS

IN FY 88, FOR THE FOURTH STRAIGHT YEAR, AMERICAN SAMOA IS GETTING BY WITH ROUGHLY THE SAME AMOUNT OF OPERATIONS FUNDING FROM THE U.S. CONGRESS. WE ARE ACTUALLY OPERATING ON A DECLINING SHARE OF THE FEDERAL BUDGET. FOR THE LAST THREE YEARS WE HAVE IMPROVED OUR EXPENDITURE PERFORMANCE. FOR THE LAST TWO YEARS WE HAVE REDUCED OUR DEFICIT.

IN FY 87 THE AMERICAN SAMOA GOVERNMENT RECEIVED A VIRTUALLY CLEAN AUDIT OPINION FROM OUR ACCOUNTANTS. THE ONLY RESERVATIONS EXPRESSED DEALT WITH THE AMERICAN SAMOA POWER AUTHORITY. I URGE YOU TO REVIEW THIS DOCU-

MENT CAREFULLY AS IT WILL TELL YOU MORE ABOUT OUR PERFORMANCE THAN I COULD EVER CONVEY IN THIS TESTIMONY.

WE DID WELL LAST YEAR. THE ONLY THING WE COULD HAVE DONE BETTER WAS PREDICT THE FUTURE WHILE IT WAS HAPPENING. I SUBMIT TO YOU THAT TRYING TO DO SO IS A DIFFICULT TASK FOR ANY GOVERNMENT IN THESE TIMES.

WE IN AMERICAN SAMOA ARE JUSTIFIABLY PROUD OF OUR EFFORTS TO BRING OUR BUDGET AND FINANCE MATTERS UNDER CONTROL. WE WORKED LONG AND HARD AT IT AND OUR FY 87 PERFORMANCE SHOWS IT. YET DESPITE ALL OUR EFFORTS, THE LARGEST SINGLE IMPACT UPON OUR FISCAL PERFORMANCE AROSE OUT OF EXTERNAL FACTORS WHICH WERE ENTIRELY BEYOND OUR CONTROL--TUNA INDUSTRY ECONOMICS AND HURRICANES.

FOR THIS REASON WE WISH TO EXPRESS CONTINUED CONCERN OVER A BUDGET PROCESS WHICH, ONE YEAR AGO, HAD US FACING A $5 MILLION RESCISSION OF FEDERAL FUNDING AS A RESULT OF PROJECTED IMPROVEMENTS IN OUR LOCAL FINANCIAL PICTURE. FORTUNATELY, CONGRESS WAS JUSTIFIABLY CONCERNED OVER THE FISCAL HEALTH AND INTEGRITY OF THE TERRITORY. AS A RESULT YOU GRACIOUSLY, AND I BELIEVE NOT WITHOUT SOME DIFFICULTY, HAD THOSE FUNDS REINSTATED. FOR THIS WE THANK YOU.

BUT A PROCESS WHICH PENALIZES US FOR MAKING PROGRESS AND BEING OPTIMISTIC ABOUT IT IS DIFFICULT FOR US TO UNDERSTAND. A $5 MILLION CUT IN FY 88 OPERATIONS FUNDING WOULD HAVE HURT US AS MUCH THIS YEAR AS THE INCREASED PRICE OF A CASE OF TUNA HELPED US LAST YEAR. OUR TERRITORY IS TRYING TO GROW, TO MAKE A BETTER LIFE FOR ITS PEOPLE, TO BE MORE RESPONSIBLE IN ITS FINANCIAL AFFAIRS. ALL THIS REQUIRES PLANNING, AND THAT REQUIRES LEAD TIME.

AT LAST YEAR'S OVERSITE HEARINGS WE POINTED OUT THE NEED FOR MULTI-YEAR OPERATIONS FUNDING, TO ENABLE US TO MORE EFFECTIVELY LOOK TO THE FUTURE. TODAY WE RENEW THAT SUGGESTION.

THANK YOU FOR THE OPPORTUNITY TO TESTIFY AT THESE HEARINGS. AND ON BEHALF OF THE PEOPLE OF AMERICAN SAMOA, THANK YOU AGAIN FOR YOUR WISDOM IN ASSISTING US IN FY 88, AND IN ALL THE OTHER YEARS AS WELL.

SOIFUA.

## EXHIBIT A

### REVENUES

### (millions)

| | '86 Actual | '87 Budget | '87 Revised Proj. | '87 Actual |
|---|---|---|---|---|
| Corp. Tax | $3.4 | $ 5.9 | $4.0 | $7.2 |
| Ind. Tax | 5.7 | 6.7 | 4.5 | 6.0 |
| Sales Tax | .8 | 2.0 | 1.6 | 1.6 |
| Excise Tax | 5.2 | 6.5 | 5.0 | 6.1 |
| Extraord. Items* | 4.0 | 5.0 | 5.0 | 2.5 |
| TOTAL TAXES | $19.9 | $26.1 | $20.1 | $23.4 |

*refers to non-current tuna cannery audit settlements

## EXHIBIT B

### EXECUTIVE ORDER NO. 02-1987

### FISCAL CONTROL MEASURES FOR THE REMAINDER OF FISCAL YEAR 1987

By the authority vested in the Governor of American Samoa by the Revised Constitution of American Samoa, it is hereby ordered as follows:

1. Hiring, Reclassifications and Promotions.

a. No new temporary or permanent positions shall be created except where required by statutory or regulatory authority.

b. No vacant temporary or permanent positions shall be filled except upon the Governor's approval of certification by the Director of Manpower Resources that filling the position is essential. This restriction shall not apply to grant-funded temporary positions nor to professional medical staff at the Department of Health.

c. There shall be no reclassifications or promotions.

2. Step Increases.

Step increases shall be delayed until such time as the Governor determines they can be processed without unreasonably jeopardizing the Government's fiscal position.

3. Overtime.

a. The Treasurer shall not approve for payment any overtime unless it is budgeted within an agency's budget.

b. All directors who do not presently have overtime in their budget and who feel overtime is necessary to the proper functioning of their agency shall submit a request to the Office of Program Planning and Budget Development to reprogram existing funds to cover all anticipated FY 1987 overtime requirements.

4. Compensatory Time.

All directors shall instruct their employees to reduce their accrued compensatory time to below 120 hours by June 30, 1987. It is recognized that in some instances this may be impossible. If that is the case, funds shall be reprogrammed in the same manner as overtime as set forth in Section 3 above, and shall be charged against each agency's budget.

5. Travel.

a. All locally-funded travel shall be justified in writing. The Treasurer shall determine which travel is essential and necessary to Government service. The Treasurer shall have the authority to disapprove travel he deems non-essential.

b. All grant-funded travel shall be justified by grant authority, funding and relevancy to local program activity.

6. Vehicle Purchases.

There shall be no purchase or other acquisitions of motor vehicles by the Government until further notice. This restriction shall not apply to school buses, heavy equipment or other vehicles pending delivery under purchase orders executed prior to the date of this Executive Order which cannot be readily cancelled or postponed.

7. Control Agencies.

The Offices of Treasury, Program Planning and Budget Development, Manpower Resources, Procurement, according to their respective responsibilities, are directed to withhold the processing of any documentation not in compliance with the terms of this Executive Order.

8. Effective Date and Duration.

This Executive Order is effective immediately and shall remain in effect during the remainder of fiscal year 1987 unless sooner modified or terminated.

Date: March 31, 1987

A P Lutali

A. P. LUTALI
Governor of American Samoa

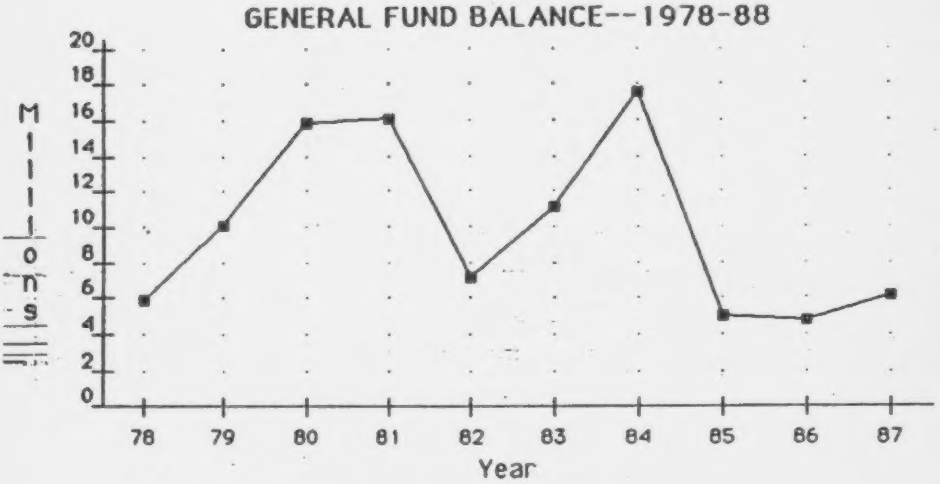
## EXHIBIT C

## GENERAL FUND BUDGET VERSUS ACTUAL EXPENDITURES

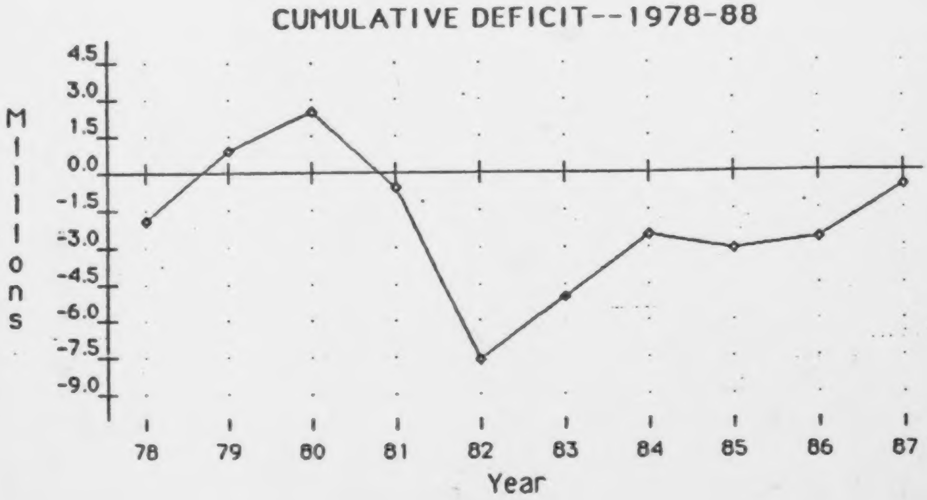
(millions)

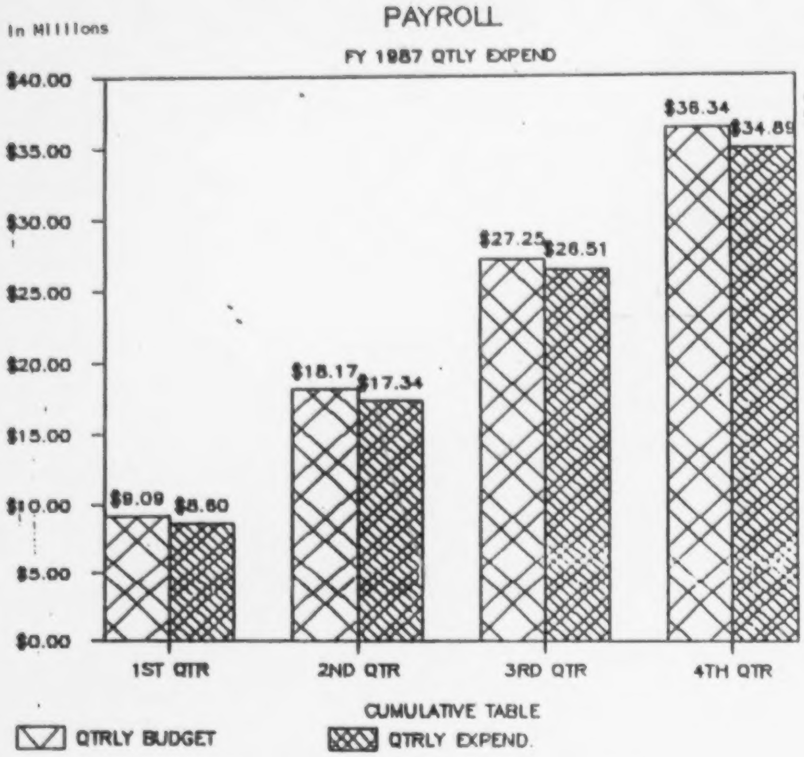
| Year | Budget | Actual Expenditures | Surplus (Overrun) |
|---|---|---|---|
| 1987 | $54.9 | $53.0 | $1.8 |
| 1986 | 49.0 | 50.0 | (.9) |
| 1985 | 45.4 | 48.5 | (3.1) |

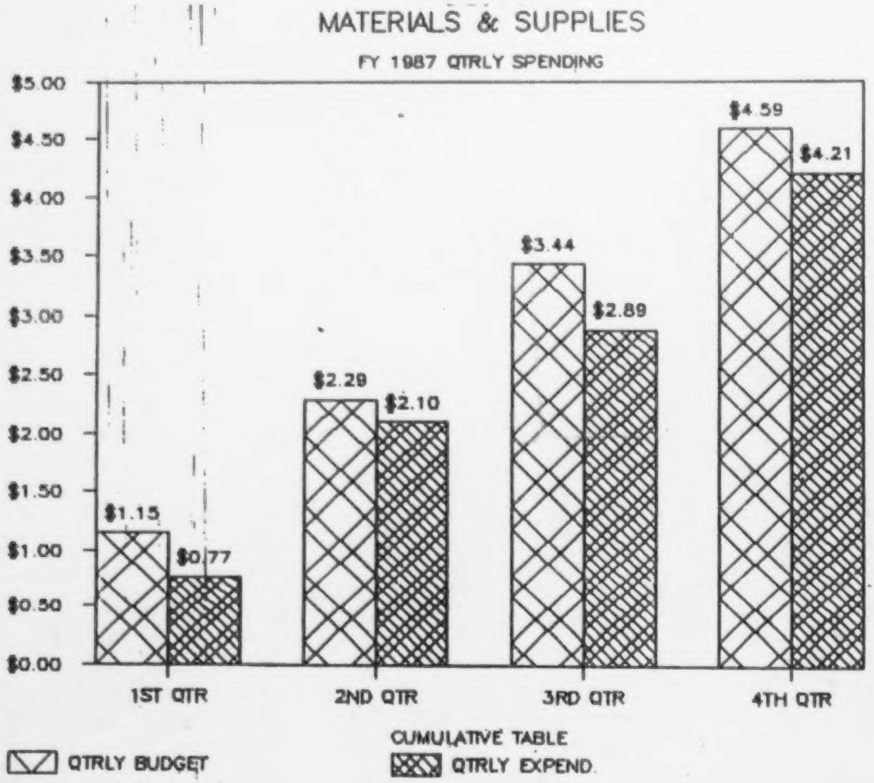
## EXHIBIT D



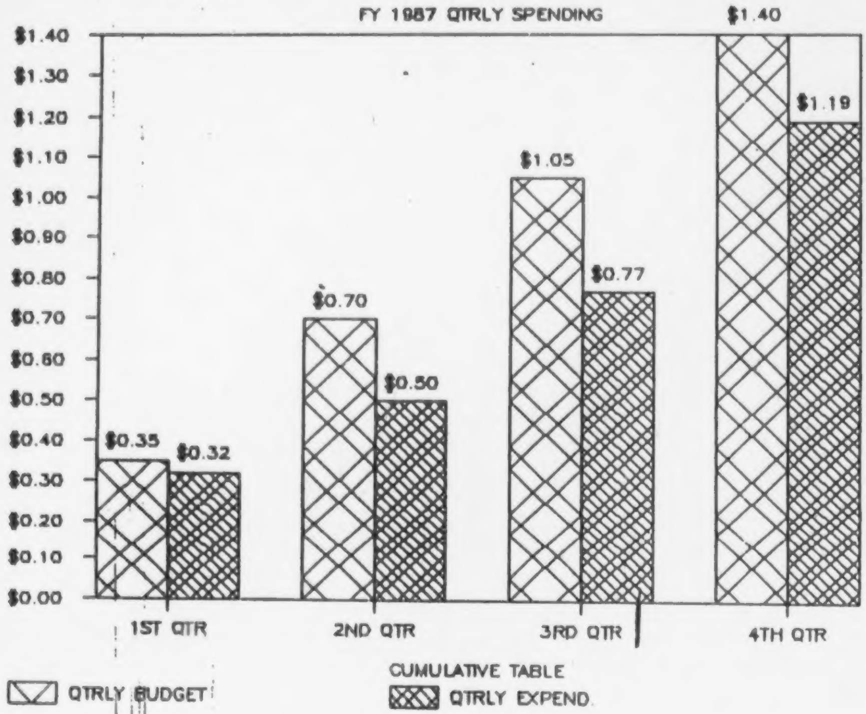
## EXHIBIT E



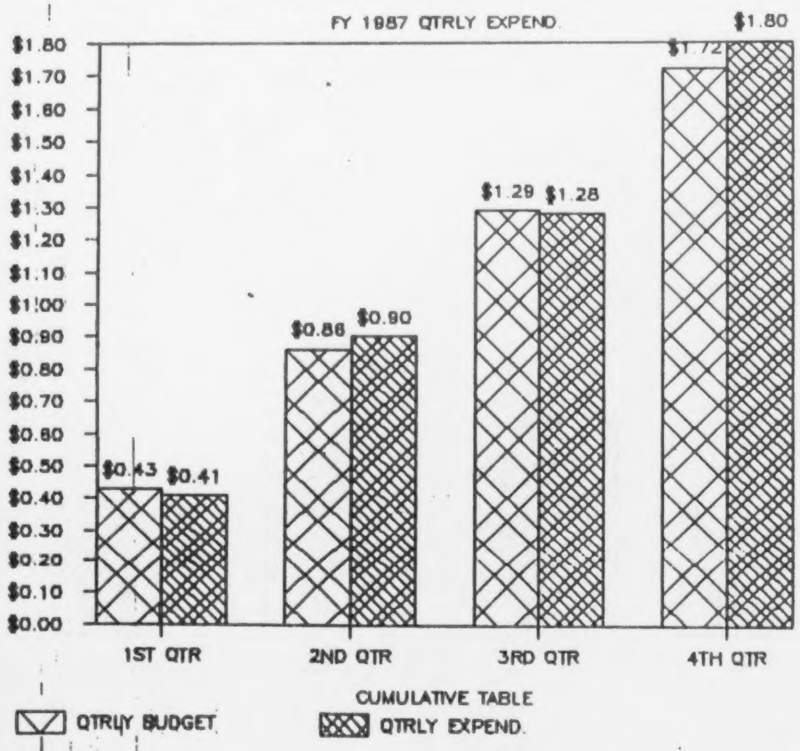

PAYROLL
In Millions
FY 1987 QTLY EXPEND
$40.00
$35.00
$30.00
$25.00
$20.00
$15.00
$10.00
$5.00
$0.00
$9.09
$8.60
$18.17
$17.34
$27.25
$26.51
$36.34
$34.89
1ST QTR
2ND QTR
3RD QTR
4TH QTR
CUMULATIVE TABLE
QTRLY BUDGET
QTRLY EXPEND.

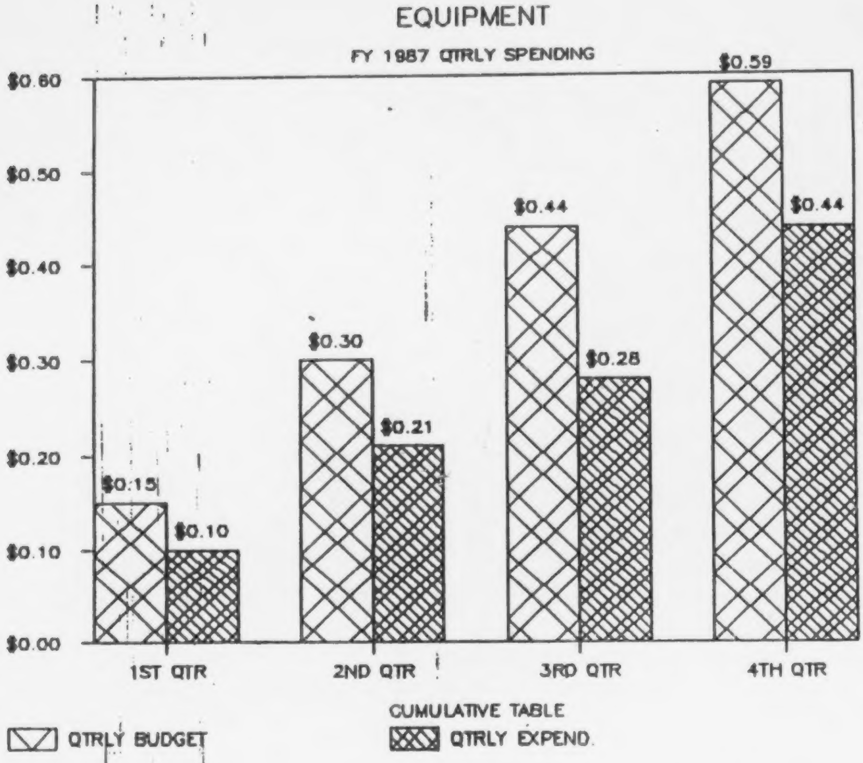

MATERIALS & SUPPLIES
FY 1987 QTRLY SPENDING
$5.00
$4.50
$4.00
$3.50
$3.00
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
$1.15
$0.77
$2.29
$2.10
$3.44
$2.89
$4.59
$4.21
1ST QTR
2ND QTR
3RD QTR
4TH QTR
CUMULATIVE TABLE
QTRLY BUDGET
QTRLY EXPEND.

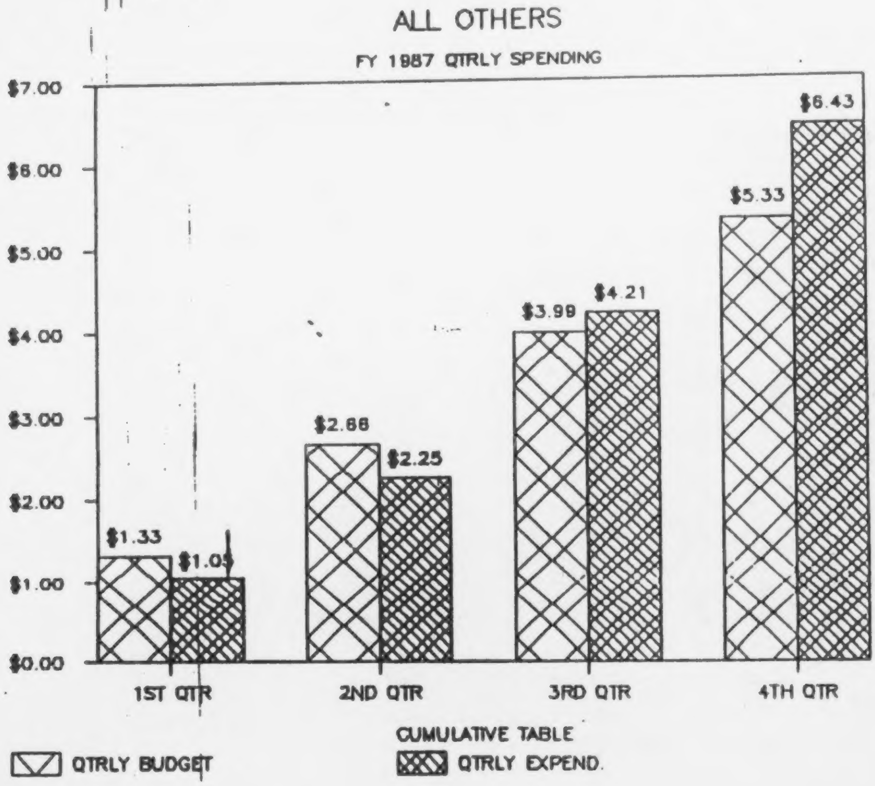
TRAVEL



CONTRACTUAL SERVICES




EQUIPMENT
FY 1987 QTRLY SPENDING
$0.60
$0.50
$0.40
$0.30
$0.20
$0.10
$0.00
$0.15
$0.10
$0.30
$0.21
$0.44
$0.28
$0.59
$0.44
1ST QTR
2ND QTR
3RD QTR
4TH QTR
CUMULATIVE TABLE
QTRLY BUDGET
QTRLY EXPEND.


ALL OTHERS
FY 1987 QTRLY SPENDING
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
$1.00
$0.00
$1.33
$1.05
$2.66
$2.25
$3.99
$4.21
$5.33
$6.43
1ST QTR
2ND QTR
3RD QTR
4TH QTR
CUMULATIVE TABLE
QTRLY BUDGET
QTRLY EXPEND.

# STATEMENT OF LETULI TOLOA

HONORABLE CHAIRMAN, FELLOW COMMITTEE MEMBERS, AND COLLEAGUES, I WISH TO THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE YOU AND SHARE MY THOUGHTS ON THE UPCOMING FISCAL YEAR BUDGET. MY COMMENTS WILL BE BRIEF IN ORDER TO ALLOW YOU MORE TIME TO CONSIDER THESE DIFFICULT MATTERS.

THE AMERICAN SAMOA ECONOMY IS IN RELATIVELY GOOD CONDITION. DESPITE LOWER LEVELS OF FEDERAL OUTLAYS FOR THE TERRITORY WE MANAGED TO COPE WITH OUR BUDGET USING MORE EFFICIENT METHODS OF PROGRAM MANAGEMENT AND BETTER PLANNING. CERTAIN PROJECTS WHICH WERE STARTED SEVERAL YEARS AGO HAVE BEEN COMPLETED GENERATING NEW SOURCES OF REVENUE FOR THE GOVERNMENT. OUR LOCAL TAX BASE, THOUGH VERY FRAGILE, PROVIDED A STABLE TAX FLOW DURING F.Y. 1987 AND INTO F.Y. 1988.

HOWEVER, WE ARE BEFORE THE COMMITTEE TO ADDRESS THE LEVEL OF FEDERAL OUTLAYS FOR THE TERRITORY. THE MOST IMPORTANT PART TO REMEMBER IS THAT, FOR ALL THE IMPROVEMENTS, AMERICAN SAMOA IS STILL DEVELOPING ITS ECONOMIC BASE AND INFRASTRUCTURE. THIS DOES NOT AT ALL MEAN WE HAVE NOT WORKED ON MEETING THESE BASIC NEEDS. IT MEANS ONLY THAT WE ARE STILL IN A DEVELOPING STAGE. RELIABLY CLEAN WATER SUPPLY, STEADY ELECTRIC POWER GENERATION AND DISTRIBUTION, AND SAFE ROADS ARE NOT UP TO THE STANDARDS OF OTHER AMERICAN COMMUNITIES. OF COURSE, THIS IS OUR STANDARD TO JUDGE BY.

THE KEY TO REACHING THESE STANDARDS IS TO CONTINUE THE STEADY PROGRESS WE HAVE MADE WITH CONTINUED FEDERAL SUPPORT. LAST YEAR EVERYONE FACED BUDGET CUTS, INCLUDING US. THOSE CUTS SLOWED OUR PROGRESS AND WERE FELT BY OUR SMALL ECONOMY. FOR THIS YEAR, WE BELIEVE THAT HIGHER LEVELS OF FEDERAL SUP-

PORT ARE ESPECIALLY IMPORTANT. A HURRICANE LAST YEAR CAUSED US TO DIVERT MANY OF OUR LIMITED RESOURCES FOR MANY PROJECTS AND DELAYED MANY OTHERS. WHILE FUNDING FOR THAT DISASTER WAS LATER RECEIVED, LOST TIME CAN NEVER BE RECOVERED. OUR INFRASTRUCTURE STILL WAITS FOR COMPLETION. FEDERAL SUPPORT AT THE REQUESTED LEVELS WILL PUT AMERICAN SAMOA BACK ON TRACK TOWARD ITS PLANNED GOALS AND WILL RETURN US TO THE ORIGINAL SCHEDULE OF PROGRESS.

GENTLEMEN, I THANK YOU FOR YOUR ATTENTION AND HOPE MY BRIEF COMMENTS CAN MEANINGFULLY INCREASE YOUR UNDERSTANDING OF THE TERRITORY'S NEEDS.

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## STATEMENT OF TUANA'ITAU F. TUIA

MR. CHAIRMAN AND HONORABLE MEMBERS OF THE COMMITTEE, DESPITE THE MANY PRIVILEDGES I HAVE HAD TO APPEAR AND OFFER TESTIMONY BEFORE THIS ILLUSTRIOUS BODY, I ALWAYS FIND MYSELF OVERWHELMED AND IN AWE OF THE RESPONSIBILITY THAT YOU SHOULDER AND HOW TAXING IT MUST BE ON YOU PERSONALLY. EVERY YEAR, WE APPEAR BEFORE YOU OFFERING TESTIMONY WITH THE AIM TO CONVINCE YOU THAT OUR NEEDS TAKE PRIORITY OVER OTHERS. AT TIMES WE FEEL BETRAYED AND DEJECTED WHEN WE FAIL TO PERSUADE YOU THAT A CERTAIN PROJECT IS CRITICAL TO OUR EFFORTS TO IMPROVE THE QUALITY OF YOUR PEOPLE IN THE PACIFIC. WE TEND TO FORGET THAT OTHER AMERICANS ARE WORSE OFF THAN WE ARE AND THEREFORE DEMANDS PRIMARY ATTENTION. I HOPE WE HAVE NOT FAILED IN EXPRESSING OUR ETERNAL GRATITUDE FOR THE SUPPORT, UNDERSTANDING, COMMITMENT AND UNDYING DEVOTION IN ENSURING THAT YOUR PACIFIC AMERICANS CONTINUE TO ACTUALIZE THEIR DREAMS AND ASPIRATIONS.

OUR GOVERNOR HAS PRESENTED THE OVERVIEW OF THE RESULTS OF THE EFFORTS OF OUR TERRITORY TO MAINTAIN SOCIAL, ECONOMIC AND POLITICAL DEVELOPMENT PROGRESS, WHILE SIMULTANEOUSLY CONTAIN SPENDING TO AVAILABLE RESOURCES. THE SUBSTANTIAL REDUCTION IN OUR DEFICIT FOR FISCAL YEAR 1987 SHOWS THE COMMITMENT BY THE LEADERS OF OUR TERRITORY IN SHARING THE FINANCIAL BURDEN. THE GOVERNOR HAS POINTED OUT ALSO THE

REVENUE INITIATIVES WHICH HAVE BEEN ENACTED AND IMPLEMENTED TO WIDEN OUR REVENUE BASE; THUS EXAMPLIFYING FURTHER OUR GENUINE COMMITMENT TO THE LONG LASTING PARTNERSHIP IN CREATING GREATER AUTONOMY FOR YOUR PACIFIC AMERICANS. THESE EFFORTS HAVE NOT BEEN POLITICALLY PLEASING TO OUR POPULUS, NEVERTHELESS, THESE DIFFICULT DECISIONS NEEDED TO BE MADE, BECAUSE WE MUST, AS HAS BEEN OUR MESSAGE TO YOU ALL ALONG, SHARE OUR PORTION OF THE NATIONAL BURDEN.

WHILE WE ARE BEING BOASTFUL AND GLOATING OVER OUR PERFORMANCE IN FISCAL YEAR 1987 AND A VERY PROMISING ECONOMIC CLIMATE FOR FISCAL YEAR 1988, DUE TO THE INFLUX OF FUNDS FROM THE HURRICANE TUSI AND THE WINDFALL IN TUNA TAX REVENUES,

I AM VERY CONCERNED THAT WE WILL NOT BE AS FORTUNATE IN FISCAL YEAR 1989. FOR THIS REASON, OUR REQUEST FOR OPERATION IS HIGHER THAN FROM THE PREVIOUS YEARS AS OUTLINED BY OUR GOVERNOR. THE PEOPLE OF THE TERRITORY ARE VERY THANKFUL FOR THE ANNUAL FINANCIAL SUPPORT ALTHOUGH THE AMOUNTS HAVE DECLINED GIVEN THE RISING INFLATION AND 1.85% PERCENT ANNUAL POPULATION GROWTH. THE AMERICAN SAMOA GOVERNMENT HAS BEEN OFFSETTING NOT ONLY THE DECLINE IN FEDERAL SUPPORT DUE TO INFLATION AND RISING DEMAND FOR SERVICES DUE TO POPULATION GROWTH, BUT ALSO TO MEET ITS SHARE OF THE RISING COST OF GOVERNMENT.

EVER SINCE I HAVE HAD THE PRIVILEDGE AND THE HONOR TO APPEAR BEFORE THIS DISTINGUISHED FORUM, I HAVE BELABORED THE POINT RESPECTING THE RESTRICTIVE NATURE OF OUR ECONOMIC SYSTEM. YOU HAVE HEARD MANY A TIME, I AM SURE, THAT THE ECONOMIC SYSTEM OF THE TERRITORY IS COMPRISED ON THE GOVERNMENT SECTOR AND THE CANNERIES. ALL THE OTHER ECONOMIC SECTORS EVOLVE AROUND THESE TWO. THIS POINT IS CLEARLY ILLUSTRATED BY THE IMPROVED ECONOMIC HEALTH EXPERIENCED BY THE TERRITORY IN 1987, BASED ON THE INSERTION OF HURRICANE TUSI FUNDS AND WINDFALL TUNA TAX REVENUES. THE REVENUE COLLECTION FOR THE TERRITORY IS PROJECTED TO DECLINE IN FISCAL YEAR 1989 DUE TO THE TERMINATION OF HURRICANE TUSI PROJECTS AND NON ANTICIPATION FOR ANY WINDFALL TUNA TAX SETTLEMENT. THE POINT THAT I AM TRYING TO STRESS IS THAT FEDERAL ASSISTANCE SHOULD BE COGNIZANT OF THE NEED TO FOSTER THE CREATION OF A CONDUCIVE ECONOMIC ENVIRONMENT TO FACILITATE LONG TERM

ECONOMIC DEVELOPMENT AIMED AT EXPANDING THE TERRITORY'S REVENUE BASE.

OUR GOVERNOR IS AGRESSIVELY PURSUING INDUSTRIALIZATION THROUGH THE ATTRACTION OF FOREIGN COMPANIES TO ESTABLISH MANUFACTURING FACILITIES. WHILE WE ARE BEGINNING TO SEE SOME OF THE FRUITS OF HIS EFFORTS, THE PROCESS HAS BEEN EXACERBATED BY THE UNFAVORABLE ECONOMIC CONDITIONS EMANATING FROM HIGH LABOR COSTS COMPARED TO OUR ISLAND NEIGHBORS AND THE INEFFECTIVENESS OF THE INCENTIVE SCHEMES SUCH AS THE HEAD NOTE 3(a). WE ALWAYS FIND OURSELVES IN A VERY WEAK NEGOTIATING POSITION WHICH RESULTS IN OUR COMPROMISING AND SACRIFICING TAX REVENUES THROUGH OFFERING OF TAX INCENTIVES TO IMPROVE THE ECONOMICS OF DOING BUSINESS IN THE TERRITORY. WE FIND OURSELVES IN THE SAME PREDICAMENT WITH THE CANNERIES. UNLESS THE TERRITORY'S ECONOMIC BASE IS EXPANDED, WE WILL CONTINUE TO SEEK BEFORE YOU SOLICITING FINANCIAL SUPPORT TO MEET THE NEEDS OF OUR PEOPLE. IT IS CRITICAL THAT WE BEGIN THE PROCESS OF REMOVING ECONOMIC BARRIERS PRECLUDING THE ABILITIES OF YOUR TERRITORIES TO PURSUE ECONOMIC INDEPENDENCE THROUGH DIVERSIFICATION.

WITH YOUR HELP, WE HAVE CONSTRUCTED AN INFRASTRUCTUAL SYSTEM TO ACCOMMODATE DEVELOPMENT. THE TASK OF KEEPING AHEAD OF DEMAND HAS BEEN VERY DIFFICULT, HOWEVER, BECAUSE OF THE TREMENDOUS AMOUNT OF MONEY THAT HAS GONE INTO REHABILITATING THE OLD SYSTEMS AND THE CONTINUAL GROWTH IN OUR POPULATION. ONE OF THESE EXAMPLES IS OUR WATER SYSTEM. WE ARE VERY APPRECIATIVE OF CONTINUED SUPPORT OF OUR WATER SYSTEM DEVELOPMENT PROGRAM AS MANIFESTED IN THE INCLUSION OF FUNDS FOR FISCAL YEAR 1989.

THE AMERICAN SAMOA HOUSE OF REPRESENTATIVES IS APPRECIATIVE OF THE INCORPORATION OF $1.2 MILLION FOR THE NEW DOCK AT FALEASAO, MANU'A. I FEEL SOMETIMES THAT WE HAVE FAILED TO PROVIDE THE NECESSARY ATTENTION TO THE NEEDS OF THE MANU'A ISLANDS.

THIS FACT IS MORE PRONOUNCED WITH THE CURRENT PROBLEMS FACED IN OUR HURRICANE TUSI REHABILITATION EFFORTS. THE BASIC CONTRIBUTING FACTOR IS THE UNSAFE CONDITIONS OF THE EXISTING WHARF ON TA'U. THE DESIGN, WHICH WAS DEVELOPED BY THE CORPS OF ENGINEERS, FAILED TO PROVIDE A SAFE HAVEN FOR

BOATS SERVICING THE MANU'A ISLANDS. TRANSPORTATION OF CONSTRUCTION MATERIALS TO MANU'A HAS BEEN MADE IMPOSSIBLE BECAUSE OF THE UNSAFE CONDITION OF THE WHARF. AS A RESULT THE PROJECTS ARE NOT MEETING THE TIME SCHEDULE. ANY EFFORTS IN THE FUTURE TO PROMOTE SOCIAL AND ECONOMIC DEVELOPMENT WILL BE AN EXERCISE IN FUTILITY IF NOTHING IS DONE TO UPGRADE THE BASIC INFRASTRUCTURAL SYSTEM. THE ISLANDS DEPEND ON TRANSPORTATION FOR THEIR LIVELIHOOD, THUS THE IMMEDIATE NEED TO CONSTRUCT A NEW WHARF IN FALEASAO AS RECOMMENDED BY THE ARMY CORPS OF ENGINEERS.

WE ARE THANKFUL FOR THE INCLUSION OF $1 MILLION FOR OUR HEALTH FACILITIES AND $1 MILLION FOR THE LEONE WHARF. I AM A STRONG ADVOCATE OF LONG TERM DEVELOPMENT AND THE NEED TO PROPERLY ORCHESTRATE ALL OUR EFFORTS TO ENSURE ATTAINMENT OF OUR LONG TERM DEVELOPMENT GOALS. YOU HAVE HEARD OUR GOVERNOR EXPLAIN THE ECONOMIC UNCERTAINTIES FOR FISCAL YEAR 1989 BECAUSE OF THE ELIMINATION OF FACTORS CAUSING THE TEMPORARY AND ARTIFICIAL JUMP IN OUR REVENUE COLLECTIONS FOR FISCAL YEAR 1987 AND 1988. THIS FACT ACCENTUATES THE NEED FOR US TO DESIGN LONG TERM STRATEGIES TO PROMOTE SUSTAINED GROWTH PROGRAMS TO WARD OF ROLL-A-COASTER TYPE OF DEVELOPMENT THAT IS DESTRUCTIVE TO SYSTEMATIC, ORDERLY AND CONTINUED PROGRESS IN SOCIAL, ECONOMIC AND POLITICAL STATUS OF YOUR PACIFIC AMERICANS. I WOULD LIKE TO ADD FOR YOUR CONSIDERATION, FUNDING EARMARKED SPECIFICALLY FOR RENEWABLE RESOURCE DEVELOPMENT PROGRAMS. A GOOD EXAMPLE IS THE CONSTRUCTION OF A SLAUGHTER FACILITY TO COMPLETE THE LIVESTOCK DEVELOPMENT PROGRAM WHICH HAS BEEN IN EXISTENCE FOR YEARS, AND THUS MAXIMIZING CAPITALIZATION ON IMPORT SUBSTITUTION BENEFITS INHERENT IN THIS PROGRAM.

COMMERCIALIZATION OF SOME OF THE RENEWABLE RESOURCE PROJECTS HAS BEEN RETARTED BY THE ABSENCE OF VENTURE CAPITAL. AQUACULTURE, FISHERIES, TOURISM, AND AGRICULTURE POTENTIALS DO EXIST, HOWEVER, FUNDS AND TECHNICAL ASSISTANCE ARE NEEDED TO CAUSE ACTUALIZATION OF THESE ECONOMIC BENEFITS.

I DO SHARE THE GOVERNOR'S OPTIMISM AND PRIDE OVER OUR PERFORMANCE LAST YEAR BECAUSE SACRIFICES WERE MADE WHEN THEY WERE NEEDED. THIS ALSO SHOWS THE RESILIENCE OUR PEOPLE AND THE VIGILANCE OF ITS LEADERS TO FACE REALITY. AS OUR GOVERNOR MENTIONED, SACRIFICES WILL CONTINUE TO BE MADE

FOR IN DOING SO, WE FEEL A SENSE OF PARTICIPATION AND SHARING EQUALLY IN THE PAINS AND TRIBULATIONS OF OUR NATION. OBSERVERS AND CRITICS WHO TRAVERSE THE SAMOAN ISLANDS OFTEN COMMENTING AND EXPRESSING THEIR DISBELIEF AT THE DIFFERENCES BETWEEN AMERICAN AND INDEPENDENT WESTERN SAMOA. WHEN THEY SPEAK OF THE FUNDS WE RECEIVE FROM THE FEDERAL GOVERNMENT, THEY TERM IT "HANDOUTS". WHEN THEY SPEAK OF FUNDS THAT WESTERN SAMOA RECEIVES FROM THE METROPOLITAN COUNTRIES, INCLUDING THE UNITED STATES, THEY TERM IT "FOREIGN AID". WE ARE NOT HERE MR. CHAIRMAN, FOR HANDOUTS. WE ARE HERE BECAUSE WE ARE AMERICANS, STRIVING TO ATTAIN THE LEVEL OF EQUALITY OF LIFE PACIFIC AMERICANS ASPIRE FOR.

### ADDITIONAL CAPITAL IMPROVEMENT REQUESTS

Mr. SUNIA. Thank you, Mr. Chairman. I do not plan to use all the time allotted. I shall be very brief. The Governor and the legislative leaders are prepared to speak to the details of our budget.

Let me say, though, that in the eight years that I have had to come before your committee I have always been treated with courtesy and sympathy, and I appreciate all that.

This year we are aware of the problems which we must all face together as Americans and as members of this institution in particular.

The Department of the Interior and the President's budget office have recommended for American Samoa a level of operation funding equal to that of last year and the year before. While we would like to have more, we are aware of the problems that we face.

However, we have asked for two or three additions to our capital improvement program. These items, Mr. Chairman, I personally consider to be of great need, particularly the addition to the health care program of the territory and to the landing facilities on the islands because of their great importance in the movement of people and goods.

With those few words, Mr. Chairman, I would like to introduce our Governor, Governor Lutali.

Senator MCCLURE. Thank you very much.

I would invite you to summarize.

### AMERICAN SAMOA ECONOMIC CONDITION

Governor LUTALI. Mr. Chairman, I thank you for the opportunity to appear before you today.

You will be happy to know that unlike prior years the American Samoa Government is in a sound financial position. We could not have accomplished this without the assistance from the Office of Territorial and International Affairs and the U.S. Congress. The leaders of this country have shown genuine concern for the welfare of our territory. For this the people of American Samoa are grateful and will always remain loyal to the United States. We are very proud to be a part of this great nation.

You have before you a copy of my testimony presented to the House Subcommittee on Insular and International Affairs on February 25, 1988, in which I discussed our financial performance in fiscal year 1987.

Our positive financial position was largely due to an unanticipated windfall in tuna tax revenues and an overall increase in corporate, individual, and excise taxes.

Another factor which contributed to our economic growth was the additional moneys flowing into the territory from Hurricane Tusi.

These, coupled with much improved fiscal management and the strict application of cost cutting measures, had a significant affect on our fiscal year 1987 financial performance.

I am pleased to report that the American Samoa Government received a virtually clean audit opinion in 1987. This is reflected in our "Comprehensive Annual Financial Report" for the year ended September 30, 1987, audited by Touche Ross & Co. Its findings will allow the members of this committee to appreciate the sound fiscal management practices exercised by the government during 1987.

Our continued efforts to contain costs, improve revenue collection and control expenditures have produced favorable results thus far this year. Our revenue collections for the first half of fiscal year 1988 are as we projected. Much of this can be attributed to the increase in local construction and the surge of business activity in the territory.

By taking the above actions, the Government was able to revise its fiscal year 1988 revenue projections to include an additional $3.2 million. These funds were then appropriated to cover the cost of an across-the-board pay increase to all government employees whose salaries had been frozen for 2 years. This pay increase was long overdue.

### ASG REVENUE COLLECTIONS AND CONTROL PLAN

I have submitted for your review and information a revenue collections and control of expenditures plan for the American Samoa Government as mandated by the United States Congress in Public Law 100–202. This plan documents our commitment to continue exercising prudent financial management. It is our hope to have a balanced budget by the end of fiscal year 1988.

Over the years American Samoa has made tremendous progress. I believe the Office of Territorial and International Affairs can attest to this fact.

We have made considerable improvements in our educational curriculum which is evident in improved student performance and higher percentages in scholastic achievement scores. We have invested an enormous amount of funds in the capital improvement of several school facilities and the construction of new classrooms and two high school gymnasiums.

Additionally, we have upgraded the quality of our health care delivery system and social services.

Our communication system has advanced significantly in the field of technology. I am proud to say that we have the best in the South Pacific.

All other infrastructures have been improved considerably.

We have and will continue to aggressively pursue regional and foreign trade missions so as to attract outside investment to the territory and to diversify our economic base.

To ensure an environment conducive to these initiatives, the territory has implemented several major capital improvement projects essential to our economic infrastructure.

### ASG FISCAL YEAR 1989 REQUESTS

This brings me to our fiscal year 1989 request for Department of the Interior grant-in-aid. Although higher than that requested in 1988, it is justified by the increase in Government services prompted by the growing demand from our growing population. A careful analysis of our 1989 grant-in-aid request reveals that the majority of funds are allocated for health at $6.6 million, education at $8.2 million, public safety at $1.1 million, and $5.5 million for public works.

Mr. Chairman, we appreciate appearing before you to present our testimony on our budget request. We do hope that you will give our request favorable consideration.

Mr. SUNIA. Mr. Chairman, I would like to introduce our legislative leaders.

Senator JOHNSTON [presiding]. We are very glad to have your legislative leaders. Their full statements will be put in the record.

Gentleman, I am sorry. We don't have time for all the speakers to speak. We have such a full agenda this afternoon. I apologize for that. We just have too many people to get in if we are going to cover the whole range. But your statements will be very carefully considered. I can assure you of that.

Mr. SUNIA. Thank you.

Senator JOHNSTON. Senator McClure, did you have any questions?

Senator MCCLURE. Mr. Chairman, I will be very brief.

I know that your needs are always greater than the available funds. That has been true since I have been associated with your efforts out there. I remember with a great deal of pleasure my visits there and the opportunity to talk to the members in your great meeting facility. I will do the best that I can and I am sure the committee will do the best it can in meeting your needs.

I don't suppose there is any way to highlight any particular one because they are perhaps equal in their requirement. I do understand the problem you have with your petroleum storage facilities. I think that is one that obviously is going to be more difficult to postpone than any of the others that you have. I hope we are able to meet the need for you.

Thank you.

### ASG COST SAVING MEASURES

Senator JOHNSTON. I am very pleased that you all were able to avoid the fiscal shortfalls in 1987. How were those shortfalls avoided?

Governor LUTALI. Mr. Chairman, we went through some cost saving measures by controlling the use of government vehicles over time, hiring was stopped completely, and there were a few other measures that all came together to save us some money.

Senator JOHNSTON. Governor, maybe we ought to bring you up here to help the Federal Government balance its budget.

That was a great accomplishment and we all stand in admiration of that.

Mr. SUNIA. Mr. Chairman, there are a couple of things I wanted to make sure the record included. For the sake of those who want to make reports, I would like to assure them that all the American Samoa delegation to the budget hearings are here in the room. I tried to get them to go and enjoy Washington's weather today, but they insisted on attending. They are all in the room.

### GOOD WORKING RELATIONS WITH OTIA

Second, Mr. Chairman, I would like to point out that it has been a while that the Office of Director of Territories of the Department of the Interior has been vacant. It has not, however, lessened the activity or interaction between that office and the territory. As a matter of fact, the level of activity continues in a very appreciable fashion, perhaps even better now than before, and I would like to insert in the record those words of our appreciation.

Senator MCCLURE. Are you suggesting that we leave the office unfilled, that it works better that way? [Laughter.]

Mr. SUNIA. I am suggesting, Senator, that when the going is good, let's not rock the boat.

Senator JOHNSTON. We understand that very well, Congressman Sunia.

### ADDITIONAL COMMITTEE QUESTIONS

Gentlemen, thank you very much indeed. We are very pleased to get these good reports from American Samoa.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

QUESTION 1: WHAT IS THE STATUS OF THE CLEAN-UP EFFORTS?

Phase I of the "Cleanup efforts" is moving along on course. The $1 million appropriated by the United States Congress in fiscal year 1988 will enable the American Samoa Government to correct the hazardous conditions at the tank farm and replacement of the motor gas tanks. Two tanks will be constructed and some drainage improvements. Design work is underway. Site work should begin in August 1988. Tank installation should begin in November 1988 and be completed in January or February 1989.

Recently, the American Samoa Government added a special 1 cent/gallon terminal charge to pay for the necessary upgrading and safety repair of the facilities, primarily to eliminate the most serious hazardous and to comply with Environmental Protection Agency standards.

Furthermore, PRI South Pacific will fund certain improvements, such as a foam fire protection system, pursuant to ASG/PRI South Pacific agreement. ASG and PRI South Pacific are meeting May 9 and 10 to further develop the 5-year upgrade and replacement program now under development.

QUESTION 2: WHAT IS THE STATUS OF THE DEPARTMENT'S REPORT ON THE COST AND APPROPRIATE ROLE OF THE FEDERAL GOVERNMENT?

Dave Heggested of OTIA was in American Samoa about a month ago and one of his assignments was to gather information for this report. It is my understanding that the Department is working on the report and will submit for the record very shortly.

QUESTION 3: WHAT WERE THE RECOMMENDATIONS PROVIDED BY THE EPA?

I am unaware of any USEPA recommendations specifically related to our tank farm. However, PRI South Pacific is very much aware of USEPA requirements now and potentially applicable to the tank farm, and the 5-year upgrade and replacement program will accommodate those requirements.

As for ASEPA, the recommendations provided are general in nature as ASEPA staff has not had the opportunity to review the specific plans for the tank farm renovations. General requirements for new above ground storage tanks are as follows:

1. Tanks
    a. Secondary containment equal to the volume of the tank.

b. Corrosion protections.

c. Overfill alarms.

d. Floating roof and vapor control.

e. Access to the tanks for cleanout

f. Ground water monitoring wells.

2. Spill and Leak Control

a. Spill cleanup equipment (absorbants, etc.)

b. Fire protection equipment.

c. Any new piping should be above ground or adequate containment for the piping should be provided.

d. Adequate storage areas (concrete pads that are enclosed or with secondary containment) for all waste oil, sludge, and any petroleum products stored in 55 gallon drums. Such a storage area should drain to an oil-water separator.

e. Secondary containment for loading/unloading rack areas that drain to an oil-water separator.

3. Discharge of Stormwater/Wastewater

a. Oil-water separator of adequate capacity to handle all stormwater (effluent must contain 15 ppm or less of oil and grease).

b. Drainage system to the oil-water separator.

c. Sampling point for discharge from the oil-water separator.

# GUAM

## STATEMENT OF HON. FRANK BLAS, LT. GOVERNOR

## ACCOMPANIED BY MICHAEL J. REIDY, DIRECTOR, BUREAU OF BUDGET AND MANAGEMENT RESEARCH

### PREPARED STATEMENT

Senator JOHNSTON. Next we are pleased to welcome Lt. Gov. Frank Blas from Guam.

Governor, we are glad to have you today. Please proceed.

Your full statement will be placed in the record in full and then you may summarize.

[The statement follows:]

## STATEMENT OF FRANK F. BLAS

I WANT TO THANK YOU FOR THIS OPPORTUNITY TO PRESENT TESTIMONY BEFORE YOUR COMMITTEE ON BEHALF OF GUAM'S REQUEST FOR FUNDING THROUGH THE DEPARTMENT OF INTERIOR FOR CAPITAL IMPROVEMENT PROJECTS IN FISCAL YEAR 1989.

LET ME BEGIN THESE COMMENTS BY BRINGING YOU UP-TO-DATE ON OUR EFFORTS TO RESTORE INTEGRITY TO THE FINANCIAL MANAGEMENT OF THE GOVERNMENT OF GUAM.

AT THE END OF FISCAL YEAR 1987, IT WAS ESTIMATED THAT THE TERRITORY FACED A GENERAL FUND DEFICIT OF $170 MILLION, INCLUSIVE OF LONG-TERM DEBT ASSOCIATED WITH OPERATIONAL OBLIGATIONS.

IN RESPONSE TO THESE CONDITIONS THE TERRITORY HAS TAKEN AUSTERE MEASURES WITH REGARD TO OPERATIONS IN THE GOVERNMENT OF GUAM. AS A RESULT OF THESE MEASURES, WE ARE CONFIDENT THAT WE HAVE CONTAINED OUR DEFICIT IN THE CURRENT FISCAL YEAR. INDEED, WE ANTICIPATE THAT FOR THE FIRST TIME IN MANY YEARS ON GUAM...AN ADMINISTRATION WILL MAKE IT THROUGH AN ENTIRE FISCAL YEAR WITH ESSENTIALLY THE SAME BUDGET ESTABLISHED AT THE START OF THE FISCAL YEAR. WE WILL MAKE IT THROUGH FISCAL YEAR 1988 WITHOUT HAVING TO SEEK A GENERAL SUPPLEMENTAL BUDGET FROM OUR LEGISLATURE. WE ARE LIVING WITHIN OUR MEANS.

IN COOPERATION WITH LOCAL LEGISLATIVE LEADERS, WE HAVE ESTABLISHED STRICT CONTROLS ON LOCAL GOVERNMENT HIRING...AND CUT COSTS WHEREVER WE COULD. WE REMAIN DEDICATED TO THE COURSE OF FISCAL RESPONSIBILITY WE HAVE ESTABLISHED.

MOREOVER, GUAM HAS TAKEN SIGNIFICANT STEPS TO EXPAND ITS REVENUE BASE THROUGH THE PROMOTION OF LOCAL ECONOMIC GROWTH...ESPECIALLY IN OUR VISITOR INDUSTRY. FURTHER, WE ARE TAKING ADVANTAGE OF TAX DE-LINKAGE AUTHORITY GRANTED TO US BY THIS CONGRESS TO EXPAND OUR REVENUE BASE EVEN MORE. WE ARE COMMITTED TO DEVELOP AS MANY LOCAL REVENUE SOURCES AS POSSIBLE TO MEET THE FINANCIAL NEEDS OF OUR GOVERNMENT.

SIMULTANEOUSLY, WE HAVE EMBARKED ON A MAJOR PROGRAM OF INFRASTRUCTURE IMPROVEMENT NECESSARY TO ADDRESS YEARS OF NEGLECT AND THE REQUIREMENTS OF OUR RAPIDLY GROWING ECONOMY AND POPULATION. INCLUDED IN THIS PROGRAM IS AT LEAST $70 MILLION IN WATER, SEWER, ROAD AND OTHER INFRASTRUCTURE PROJECTS THAT WILL BE FUNDED THROUGH BONDS AND SPECIAL REVENUES. WE ARE INITIATING A SYSTEM OF IMPACT ASSESSMENTS ON DEVELOPERS TO HELP DEFRAY THE COSTS OF THIS MASSIVE PUSH TOWARDS IMPROVING OUR INFRASTRUCTURE.

STILL, WE REQUIRE THE ASSISTANCE OF THIS BODY IN MEETING ALL OF OUR CRITICAL CAPITAL IMPROVEMENT NEEDS FOR FY 89. THIS IS NOT A MEASURE OF OUR INACTIVITY ON OUR OWN BEHALF...BUT ONLY OF THE DEPTH OF OUR NEED.

FOR THIS REASON, WE MUST ASK THE INDULGENCE OF CONGRESS IN PROVIDING ASSISTANCE TO OUR PEOPLE IN THE FOLLOWING AREAS:
THE TERRITORY IS ASKING FOR THE SUM OF $1.7 MILLION FOR THE ORDOT SOLID WASTE LANDFILL FACILITY EXPANSION, $3.2 MILLION FOR RENOVATION AND EXPANSION OF GUAM MEMORIAL HOSPITAL, AND $5.2 MILLION FOR THE REPLACEMENT OF THE AGAT WATER DISTRIBUTION SYSTEM.

THE ORDOT SOLID WASTE FACILITY IS THE ONLY LANDFILL IN EXISTENCE IN THE TERRITORY. AS A RESULT OF THE TREMENDOUS POPULATION GROWTH AND ECONOMIC DEVELOPMENT ON GUAM, AND THE FACT THAT THE SITE HAS BEEN UTILIZED IN ONE FORM OR ANOTHER SINCE THE END OF THE SECOND WORLD WAR, THE ORDOT FACILITY HAS REACHED THE END OF ITS USEFUL LIFE. THIS FACT HAS BEEN CONFIRMED BY THE FEDERAL ENVIRONMENTAL PROTECTION AGENCY AND RECOGNIZED BY CONGRESS IN LAST YEAR'S APPROPRIATION. CONTINUED USE OF THE ORDOT FACILITY...WITHOUT EXPANSION...POSES A TREMENDOUS ENVIRONMENTAL AND HEALTH HAZARD TO THE PEOPLE OF GUAM...ESPECIALLY IN VIEW OF THE LIMITED LAND RESOURCES AVAILABLE TO US ON SUCH A SMALL, PACIFIC ISLAND.

IT IS CRITICAL THAT WE ADDRESS THIS MOUNTING PROBLEM, WHICH

EXACERBATES DAILY WITH THE DISPOSAL OF EVER INCREASING AMOUNTS OF WASTE. WE SEEK YOUR ASSISTANCE IN THIS TASK.

GUAM MEMORIAL HOSPITAL IS NOT JUST GUAM'S ONLY CIVILIAN HOSPITAL...IT IS A PRIMARY CARE FACILITY FOR THE ENTIRE MICRONESIAN REGION. THIS VITAL FACILITY, CENTRAL TO THE MAINTENANCE OF PUBLIC HEALTH ON GUAM AND THROUGHOUT MICRONESIA, HAS DETERIORATED DRAMATICALLY DURING THIS DECADE.

OUR ADMINISTRATION HAS BEEN ENGAGED IN A PROGRAM OF UPGRADING GUAM MEMORIAL HOSPITAL, WITH THE ASSISTANCE OF CONGRESS, FOR THE PURPOSE OF BRINGING BACK A HIGH QUALITY OF HEALTH CARE FOR OUR PEOPLE. WE HAVE COMPLETED DESIGN AND ARE BEGINNING CONSTRUCTION ON THE IMPROVEMENTS TO THE HOSPITAL AND OUR MENTAL HEALTH FACILITY FUNDED THROUGH PREVIOUS CONGRESSIONAL APPROPRIATIONS. WE HAVE ENGAGED IN A PROGRAM TO UPGRADE FINANCIAL MANAGEMENT CAPABILITIES AT GUAM MEMORIAL HOSPITAL WITH AN EYE TO MAKING THAT INSTITUTION MORE FISCALLY SELF-SUFFICIENT AND LESS DEPENDENT UPON THE GOVERNMENT OF GUAM GENERAL FUND, OR FEDERAL FUNDS FOR THAT MATTER.

WE DO, HOWEVER, REQUIRE AN ADDITIONAL $3.2 MILLION TO COMPLETE ALL PHASES OF THE CAPITAL IMPROVEMENTS THAT HAVE BEEN RECOMMENDED TO US BY THE U.S. PUBLIC HEALTH SERVICE. WE ASK CONGRESS TO CONTINUE IN ITS SUPPORT OF THIS INSTITUTION THAT IS SO IMPORTANT TO THE RELIEF OF SUFFERING AND THE SAVING OF LIVES FOR PACIFIC AMERICANS IN MANY MICRONESIAN ISLANDS.

THE AGAT WATER DISTRIBUTION SYSTEM IS ONE OF THE OLDEST ON GUAM, HAVING BEEN BUILT BY THE UNITED STATES NAVY IMMEDIATELY AFTER WORLD WAR II. AS ONE MAY SURMISE, IT HAS DETERIORATED BADLY IN THE ENSUING FORTY ODD YEARS AND IS CURRENTLY IN NEED OF TOTAL REPLACEMENT. LOSSES THROUGH LEAKAGE IN THIS SYSTEM IS ESTIMATED AT 50%. THESE ARE LOSSES THAT OUR TERRITORY CAN ILL-AFFORD, ESPECIALLY DURING THE CURRENT DRY SEASON AND MOST ESPECIALLY IN THIS PART OF OUR ISLAND, WHICH SUFFERS FROM CHRONIC WATER SHORTAGES FOR A GOOD PART OF EVERY YEAR.

INDEED, THE ENTIRE WATER AND SEWER SYSTEM ON GUAM IS IN NEED OF TREMENDOUS WORK. OUR WATER AND WASTEWATER INFRASTRUCTURE IS NOT ONLY A SOURCE OF SUFFERING FOR OUR PEOPLE, IT IS ONE OF THE PRIMARY IMPEDIMENTS TO FURTHER ECONOMIC DEVELOPMENT OF THE TERRITORY WITH RESPECT TO OUR GROWING VISITOR INDUSTRY.

THE TERRITORY IS SPENDING MILLIONS FROM THE GENERAL FUND TO FUND THE DRILLING OF NEW WELLS AND THE MAINTENANCE OF THE EXISTING SYSTEM. FURTHER, WE ARE FLOATING AT LEAST $70 MILLION IN REVENUE MEASURES REQUIRED TO UPGRADE WATER AND WASTEWATER SYSTEMS THROUGHOUT THE ISLAND.

AT THIS TIME, HOWEVER, WE STILL NEED YOUR HELP ON THIS CRITICALLY IMPORTANT PROJECT.

ONE FINAL MATTER, WE WOULD LIKE TO ADDRESS A PORTION OF THE WATER QUALITY ACT OF 1987 WHICH WILL COST OUR TERRITORY -- AND INDEED ALL OF THE TERRITORIES DEARLY UNLESS WE ARE EXEMPTED FROM IT.

THE ACT AS PASSED IN 1987 AUTHORIZES EPA TO CONTINUE THE AWARDING OF GRANTS TO STATES AND TERRITORIES FOR THE CONSTRUCTION OF WASTEWATER TREATMENT FACILITIES THROUGH FISCAL YEAR 1990. THE ACT FURTHER AUTHORIZED EPA TO MAKE GRANTS TO STATES AND TERRITORIES TO CAPITALIZE A STATE REVOLVING FUND (SRF) FOR THE PURPOSE OF PROVIDING LOANS TO LOCAL MUNICIPALITIES FOR THE SAME PURPOSES. THIS SRF PROGRAM IS SCHEDULED TO BEGIN IN 1990 AND RUN THROUGH FISCAL YEAR 1994. THE PROGRAM REQUIRES LOCAL MUNICIPALITIES TO REPAY FUNDS LOANED BY THE STATE..TO THE STATE..WITH INTEREST.

AS GUAM, AND MANY OTHER TERRITORIES, ARE SINGLE LAYER GOVERNMENTS THAT OPERATE THEIR OWN SYSTEMS, WE WOULD ESSENTIALLY BE LOANING MONEY TO OURSELVES AND PAYING MONEY TO OURSELVES WITH INTEREST. ONE CAN SEE HOW SUCH A PROGRAM MAY HAVE VALUE IN A STATE WHICH HAS THE BENEFIT OF THE MULTILAYERED STATE, COUNTY, AND LOCAL LEVELS OF GOVERNMENT, BUT ONE CAN SEE HOW IN OUR CASE THIS DOES NOT APPLY.

WE ASK THAT GUAM BE EXEMPTED FROM THE STATE REVOLVING FUND PROGRAM, AND THAT WE BE ALLOWED TO RECEIVE THE $5 MILLION ALLOCATED TO US UNDER THIS PROGRAM AS DIRECT CONSTRUCTION GRANTS.

THANK YOU VERY MUCH FOR GIVING ME THIS OPPORTUNITY TO TESTIFY TODAY...AND THANK YOU AS WELL FOR THE STRONG SUPPORT THAT CONGRESS HAS SHOWN OVER THE YEARS TO THE TERRITORIES...AND GUAM IN PARTICULAR...IN OUR CONTINUING QUEST TO PROVIDE A GOOD QUALITY OF LIFE TO AMERICAN CITIZENS LIVING IN THE PACIFIC AND CREATE A MORE SELF-SUFFICIENT GOVERNMENT OF GUAM.

### INTRODUCTION OF GUAM OFFICIALS

Lieutenant Governor BLAS. Thank you, Mr. Chairman.

At the outset, Mr. Chairman and Senator McClure, Congressman Blaz was hopeful that he could be here with us to at least introduce me to you, this being my first appearance. However, he asked me to extend his regrets. He is in attendance at two markups in two other committees. He is going to try to make it over here.

Senator JOHNSTON. We understand that very well.

Lieutenant Governor BLAS. Mr. Chairman, I have with me our director of the bureau of budget and management, Mr. Mike Reidy, who will attempt to answer some of the questions that you might have later on.

I am here, Mr. Chairman, on behalf of the Governor of Guam, Gov. Joe Ada, to testify on the fiscal year 1989 budget for Guam through the Department of the Interior. We want to thank you very much for this opportunity to present this testimony.

### GUAM'S FISCAL CONTROL EFFORTS

At the end of fiscal year 1987 it was estimated that the territory faced a general fund deficit of about $170 million.

Our administration, Mr. Chairman and members of this committee, having assumed office in January 1987, took on this huge deficit and I think we successfully held the line, so to speak. It is my pleasure to inform the committee that the administration will make it through fiscal year 1988 that we are in right now with essentially the same budget established at the start of the fiscal year. We are trying very hard to live within our means.

In cooperation with local legislative leaders, we have established strict controls of local government hiring, and we cut costs wherever we could. We remain dedicated to the fiscal responsibility course that we have established.

We have taken significant steps to expand our revenue base through the promotion of local economic growth, especially in our visitor industry.

## GUAM INFRASTRUCTURE NEEDS

Simultaneously, we have embarked on a major program of infrastructure improvement necessary to address years of neglect and the requirements of our rapidly growing economy and population. Included in this program is at least $70 million in water, sewer, road and other infrastructure projects that will be funded through bonds and special revenues.

Still, we require the assistance of this body in meeting all of our critical capital improvement needs for fiscal year 1989. This is not a measure of inactivity, I can assure you, but only of the depth of our needs.

For this reason, we must ask the indulgence of your committee and the Congress in providing assistance to our people in the following areas:

For fiscal year 1989 we are asking for the sum of $1.7 million for the Ordot solid waste landfill facility expansion; $3.2 million for renovation and expansion of our Guam Memorial Hospital; and $5.2 million for the replacement of the water distribution system in Agat, GU.

## ORDOT LANDFILL

The Ordot facility has reached the end of its useful life. This fact has been confirmed by the Federal Environmental Protection Agency and was recognized by Congress in last year's appropriation. Continued use of this facility without an expansion poses a tremendous environmental and health hazard to our people.

## GUAM MEMORIAL HOSPITAL

The second request has to do with the Guam Memorial Hospital. As you gentlemen know, our hospital is not just Guam's only civilian hospital, it is a primary care facility for the entire Micronesian region.

We require an additional $3.2 million to complete what we have begun with the money that was given to Guam, $5.2 million. We need the additional $3.2 million to complete the capital improvements that have been recommended to us by the U.S. Public Health Service.

## AGAT WATER DISTRIBUTION SYSTEM

The third request is for the Agat water distribution system. It is the oldest on Guam, having been built by the United States Navy immediately after World War II. We estimate that because of the condition of the water system we lose about 50 percent of the water that goes through those lines. Indeed, the entire water and sewer system on Guam is in need of tremendous work.

We are doing our share. We anticipate asking for long-term bonding for at least $70 million in revenue measures required to upgrade our water and waste water systems. At this time, however, we need your help in this very critical area.

### WATER QUALITY ACT EXEMPTION REQUEST

One final matter, Mr. Chairman and members of the subcommittee. We would like to address a portion of the Water Quality Act of 1987 which would cost our territory, and indeed all of the territories, dearly unless we are exempted from it.

The act, as passed in 1987, authorizes EPA to continue the awarding of grants to States and territories for the construction of waste water treatment facilities through fiscal year 1990. The act authorizes EPA to make grants to States and territories to capitalize a State revolving fund [SRF] for the purpose of providing loans to local municipalities for the same purposes. This SRF program is scheduled to begin in 1990 and run through fiscal year 1994.

The program requires local municipalities to repay funds loaned by the State to the State with interest. As Guam and many other territories are single layer governments that operate their own systems, we would essentially be lending money to ourselves and paying money to ourselves with interest. One can see how such a program may have value in a State which has the benefit of the multilayered State, county, and local levels of government, but one can see how in our case this does not apply.

We ask that Guam be exempted from the State revolving fund program and that we be allowed to receive the $5 million allocated to us under the program as direct construction grants.

Thank you, Mr. Chairman, for this opportunity to appear before this committee on behalf of the people of Guam, and we thank as well the Congress for the very strong support they have given the territory of Guam.

Thank you very much.

### ORDOT LANDFILL

Senator JOHNSTON. Thank you very much, Governor.

With respect to the Ordot landfill, has the land been acquired?

Lieutenant Governor BLAS. We started to acquire the land, sir, with the $1 million appropriation that we received last year from the Congress. We have negotiated some and we are starting to acquire it. We haven't completed it yet. Part of the request for next fiscal year is to complete the acquisition for the additional land that is required.

Senator JOHNSTON. Do you have all the necessary permits from EPA and the other agencies for that expansion?

Mr. REIDY. We are working with the Federal EPA and the local EPA agency in acquiring those.

Senator JOHNSTON. Do you have a fee for dumping there? How are rates set for the solid waste disposal?

Lieutenant Governor BLAS. Mr. Chairman, we don't have as yet in place a user fee or other forms of fees for the use of the landfill, but at the suggestion of the committee last year, we have put together a program and we are now going before the Guam legislature to give us permission to implement either an assessment of user fees to individual households or to earmark certain property taxes for user fees. We need authorization from the legislature to do it. That is where we are on that user fee thing. We agree with that and we are going through with it.

Senator JOHNSTON. Thank you, Governor.

Senator McClure.

Senator MCCLURE. I want to follow up on that last question. As I recall, the use of the $1 million was contingent upon you developing a system of fees. If I understand your testimony correctly, you have not yet developed the system of user fees and you don't even have the legislative backing for it as yet but you have used the $1 million.

Lieutenant Governor BLAS. We haven't as yet used the $1 million. We just received notification, Senator, from the Department of the Interior of the availability of the $1 million. I think the letter was dated March 2 of this year. We are trying to dovetail it in.

Senator MCCLURE. Thank you.

Senator JOHNSTON. Thank you very much, Governor. We are always pleased to have you here.

Lieutenant Governor BLAS. Thank you very much, sir.

## COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

## STATEMENT OF HON. PEDRO A. TENORIO, LIEUTENANT GOVERNOR

**ACCOMPANIED BY:**

**ELOY INOS, FINANCE DIRECTOR**

**JAMES RIPPLE, SPECIAL ASSISTANT FOR PLANNING AND BUDGET AFFAIRS**

### PREPARED STATEMENTS

Senator JOHNSTON. Next we are happy to welcome Lt. Gov. Pedro Tenorio from the Commonwealth of the Northern Mariana Islands.

Welcome, Governor. It is good to have you here again. Please proceed.

[The statements follow:]

## STATEMENT OF PEDRO A. TENORIO

MR. CHAIRMAN AND HONORABLE MEMBERS OF THIS COMMITTEE. FROM THE NORTHERN MARIANAS, WE BRING YOU GREETINGS AND A WARM "HAFA ADAI". AS ALWAYS, WE APPRECIATE THE INTEREST THAT THE CONGRESS DEMONSTRATES IN THE WELFARE OF OUR COMMONWEALTH. IT IS THROUGH THIS INTEREST AND ASSISTANCE YOU HAVE GIVEN US THAT WE HAVE BEEN ABLE TO DEVELOP OUR ISLANDS CLOSER TO ACHIEVING SELF-SUFFICIENT.

WITH ME TODAY IS OUR FINANCE DIRECTOR, MR. ELOY INOS, AND OUR SPECIAL ASSISTANT FOR PLANNING AND BUDGET AFFAIRS, MR. JAMES RIPPLE. THEY ARE JOINED BY THEIR ASSISTANTS MESSERS PEDRO P. REYES AND JOAQUIN TEREGEYO. ALSO WITH US TODAY ARE MR. ERIC SMITH, OUR ASSISTANT ATTORNEY GENERAL, AND MR. PEDRO SASAMOTO, THE EXECUTIVE DIRECTOR OF OUR COMMONWEALTH UTILITIES CORPORATION. FROM OUR LEGISLATURE AND REPRESENTING THE SENATE IS THE HONORABLE PRESIDENT BENJAMIN T. MANGLONA AND THE HONORABLE PEDRO R. GUERRERO, SPEAKER OF THE HOUSE OF REPRESENTATIVES.

TWO YEARS AGO, THE CONGRESS ENACTED AND THE PRESIDENT SIGNED INTO LAW PUBLIC LAW 99-396. THIS LAW PROVIDES, AMONG OTHERS, FEDERAL FINANCIAL ASSISTANCE TO THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS (CNMI) FOR THE SECOND SEVEN YEAR CYCLE OF FINANCIAL ASSISTANCE UNDER SECTION 702 OF PUBLIC LAW 99-241, "THE COVENANT TO ESTABLISH THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS IN POLITICAL UNION WITH THE UNITED STATES". SECTION 10 OF PUBLIC LAW 99-396 PLEDGED $228 MILLION OF DIRECT GRANT ASSISTANCE TO THE COMMONWEALTH AT GUARANTEED ANNUAL AMOUNTS FOR THE SEVEN FISCAL YEARS BEGINNING IN FY 1986.

PUBLIC LAW 99-396 MAKES REFERENCE TO CERTAIN PERFORMANCE STANDARDS TO ACHIEVE EFFICIENCY IN THE DELIVERY OF GENERAL GOVERNMENT OPERATIONS. WE ARE PLEASED TO INFORM THE COMMITTEE THAT WE HAVE MET THESE STANDARDS AND WE PLAN TO CONTINUE THE TREND THAT WE HAVE ESTABLISHED. ONE OF THESE STANDARDS OF THE

LAW REQUIRES THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS (CNMI) TO REDUCE ITS DEPENDENCY UPON THE FEDERAL GOVERNMENT FOR FINANCIAL ASSISTANCE FOR OPERATIONS. THIS WE HAVE DONE. WE HAVE REDUCED OUR DEPENDENCY FROM 66 PERCENT IN FISCAL YEAR 1978 TO 23 PERCENT FOR FISCAL YEAR 1988, WHICH WILL BE FURTHER REDUCED TO 21 PERCENT DURING FISCAL YEAR 1989. THIS HAS BEEN ACCOMPLISHED WITHOUT ANY REDUCTION IN GOVERNMENT SERVICES, YET WE CONTINUE TO PROVIDE A STABLE GOVERNMENT, AN EQUITABLE TAX SYSTEM, AND AN ECONOMIC CLIMATE ATTRACTIVE TO PRIVATE SECTOR INVESTMENTS COUPLED WITH LAW AND ORDER THAT ASSURES SAFETY TO PERSONS AND PROPERTY.

THE CNMI HAS ESTABLISHED A POLICY TO MAINTAIN A LEVEL OF GOVERNMENT CONSISTENT WITH THE NEED FOR SERVICES DEMANDED BY THE GENERAL PUBLIC AND TO MEET ITS CONSTITUTIONAL OBLIGATIONS. THE EXPENDITURES FOR GOVERNMENT OPERATIONS HAVE INCREASED ONLY SLIGHTLY SINCE THE FIRST FISCAL YEAR OF COMMONWEALTH STATUS IN 1978. BUT THIS INCREASE HAS BEEN FAR LESS THAN THE ACTUAL AND ANTICIPATED RATE OF ECONOMIC AND POPULATION GROWTH.

MEASURING THE SIZE OF GOVERNMENT BY COMPARING THE COST OF GOVERNMENT TO THE GROSS ISLAND PRODUCT (GIP) DURING FISCAL YEAR 1979, THE FIRST FULL YEAR OF COMMONWEALTH STATUS, THE COST OF GOVERNMENT WAS 16.4 PERCENT OF GIP. THE SIZE OF THE CNMI GOVERNMENT INCREASED TO 23.4 PERCENT OF GIP IN 1985. THIS CAN BE CONTRIBUTED TO INCREASED OUTLAYS FOR HEALTH CARE, WHEN WE WERE STRIVING FOR CERTIFICATION FOR MEDICAID AND MEDICARE, EXPANDED FUNDING FOR EDUCATION, AND THE IMPLEMENTATION OF A RETIREMENT PLAN THAT WILL PROVIDE ADEQUATE INCOME FOR GOVERNMENT EMPLOYEES DURING THEIR RETIREMENT YEARS. THIS TREND REVERSED IN 1986 AND 1987 WITH THE COST OF GOVERNMENT DECREASING TO 19.2 PERCENT OF GIP. THIS REDUCTION HAS BEEN ACCOMPLISHED THROUGH GRADUAL PRIVATIZATION OF SOME OF OUR UTILITIES, BETTER TRAINING OF GOVERNMENT EMPLOYEES, AND OTHER IMPROVEMENTS IN THE DELIVERY OF PUBLIC SERVICES.

ALL UTILITY FUNCTIONS PREVIOUSLY RUN BY OUR EXECUTIVE BRANCH DEPARTMENT HAVE BEEN TRANSFERRED TO THE STATUTORILY CREATED COMMONWEALTH UTILITIES CORPORATION (CUC) EFFECTIVE OCTOBER 1, 1987. AS REQUIRED BY THE GRANT PLEDGE AGREEMENT BETWEEN THE OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS (OTIA) AND THE CNMI, CUC WILL BE FURTHER PRIVATIZED BY CONTRACTING THE OPERATIONS AND MANAGEMENT OF THE FACILITIES TO A PRIVATE SECTOR COMPANY. THE CUC BOARD OF DIRECTORS HAS SELECTED A FIRM FOR THE OPERATIONS AND MANAGEMENT OF THE POWER SYSTEM AND A FORMAL CONTRACT WILL BE EXECUTED WITHIN THE NEXT FEW WEEKS. FURTHERMORE, THE GRANT PLEDGE AGREEMENT REQUIRES THAT THE UTILITY FEES BE BASED ON FULL COST RECOVERY INCLUDING LONG-TERM DEBT SERVICE AND THAT CNMI SUBSIDY BE ELIMINATED. THESE RATES HAVE BEEN DEVELOPED AND WILL BE IMPLEMENTED BY CUSTOMER CLASS AS FULL METERING IS ACCOMPLISHED AND SERVICES IMPROVED. WITH THE IMPLEMENTATION OF THE NEW FULL COST RECOVERY RATES AS MANDATED BY THE GRANT PLEDGE AGREEMENT, IT IS ESTIMATED THAT THE ANNUAL COST FOR ELECTRICITY FOR THOSE FAMILIES ELIGIBLE UNDER THE LOW INCOME ENERGY ASSISTANCE PROGRAM (LIEAP) WILL BE APPROXIMATELY $875,000 OR $831,000 MORE THAN THE FEDERAL ASSISTANCE CURRENTLY PROVIDED. IN THE EVENT NO INCREASE CAN BE OBTAINED FROM THE APROPRIATE FEDERAL AGENCIES (HUD AND HHS), IT WILL BE NECESSARY FOR THE CNMI GOVERNMENT TO CARRY THIS BURDEN. IT IS REQUESTED THAT THIS COMMITTEE ASSIST THE CNMI IN OBTAINING THE ADDITIONAL ENERGY ASSISTANCE FUNDING FOR ELIGIBLE AND NEEDY FAMILIES.

THE SEVEN-YEAR CAPITAL DEVELOPMENT PLAN IS PROGRESSING. WITH THE ASSISTANCE PROVIDED BY OTIA, WE HAVE ENTERED INTO A CONTRACT WITH ARTHUR D. LITTLE OF BOSTON, MASSACHUSETTS, A CONSULTING FIRM, TO ASSIST US TO FINALIZE THE SEVEN YEAR PLAN IN ACCORDANCE WITH PUBLIC LAW 99-396. THE FINAL PLAN WILL BE SUBMITTED TO OTIA FOR REVIEW IN JULY OF THIS YEAR. PENDING COMPLETION OF THE PLAN, IN THE INTERIM, OTIA HAS AGREED TO PROVIDE FUNDING OF CIP PROJECTS TOTALLING $44,000,000, THE NET AMOUNT AVAILABLE FROM THE SERIES "1" BOND PROCEEDS OF OCTOBER 1, 1987. OF THIS NET

AMOUNT, $19,500,000 HAS BEEN AUTHORIZED FOR IMMEDIATE DRAWDOWN. THE INDIVIDUAL PROJECTS ARE IDENTIFIED IN OUR DETAILED BUDGET SUBMISSION.

THE FISCAL YEAR 1989 OPERATIONS AND CAPITAL IMPROVEMENT BUDGET SUBMISSION FOR THE CNMI IS IN FULL COMPLIANCE WITH THE BALANCED BUDGET PROVISION REQUIRED BY THE CNMI CONSTITUTION, THE APPROPRIATE U.S. LAWS, AND GRANT FUNDS MANAGEMENT RULES AND REGULATIONS. WE HAVE IDENTIFIED THE CAPITAL IMPROVEMENT PROJECTS (CIP) THAT WILL BE FUNDED DURING FISCAL YEAR 1989 FOLLOWING PRUDENT AND TIMELY IMPLEMENTATION SCHEDULES FOR ONGOING PROJECTS, AND ADHERING TO THE CNMI SENATORIAL DISTRICT CERTIFICATION OF APPROVED PROJECTS.

## FISCAL YEAR 1989

THE FEDERAL FINANCIAL ASSISTANCE FOR THE CNMI FOR FISCAL YEAR 1989 IS $40,150,000. THIS BUDGET HAS BEEN SUBMITTED TO THE COMMITTEE IN COMPLIANCE WITH THE SPECIAL REPRESENTATIVES AGREEMENT SIGNED ON JULY 10, 1985, AND INCORPORATED BY REFERENCE UNDER PUBLIC LAW 99-396. THIS AGREEMENT PROVIDED FOR THE U.S. FINANCIAL ASSISTANCE FOR A PERIOD OF SEVEN YEARS COMMENCING IN FISCAL YEAR 1986. INCLUDED IN ITS PROVISIONS THE SUMS OF $15,000,000 AND $25,150,000 FOR OPERATIONS AND CIP RESPECTIVELY WERE TO BE ALLOCATED IN FISCAL YEAR 1989.

IN ADDITION TO THE PRESIDENT'S BUDGET RECOMMENDATIONS FOR FISCAL YEAR 1989 WHICH WE SUPPORT, OUR UNIQUE CIRCUMSTANCES WARRANT A SPECIAL REQUEST FOR CAPITAL DEVELOPMENT FUNDS ABOVE THE LEVEL RECOMMENDED. PUBLIC LAW 99-396 PLACES EMPHASIS ON CAPITAL DEVELOPMENT FUNDING. THE PLANNED OUTLAYS FOR FISCAL YEAR 1989, COMBINED WITH THE AUTHORIZED FUNDING THROUGH FISCAL YEAR 1992, WILL NOT MEET THE IMMEDIATE NEEDS IN THE AREAS OF WATER AND HARBOR AND WILL ONLY KEEP THE OTHER INFRASTRUCTURE DEVELOPMENTS AHEAD OF THE ADDED DEMAND RESULTING FROM AN EXPANDING AND GROWING PRIVATE SECTOR ECONOMY.

U.S. PUBLIC LAW 98-254 AUTHORIZED $15 MILLION FOR WATER SYSTEMS IMPROVEMENTS IN SAIPAN. THIS WAS REAUTHORIZED UNDER PUBLIC LAW 99-662 FOR WATER SYSTEMS IMPROVEMENTS IN THE NORTHERN MARIANA ISLANDS. OF THIS AUTHORIZATION, $4.671 MILLION WAS APPROPRIATED AND EXPENDED IN CRITICAL WATER SYSTEM IMPROVEMENT NEEDS. THE BALANCE OF $10.329 MILLION IS NEEDED FOR DESIGN, ENGINEERING AND CONSTRUCTION OF THE CRITICAL WATER SOURCE DEVELOPMENT, TRANSMISSION AND DISTRIBUTION SYSTEM THROUGHOUT THE CNMI. WE REQUEST THAT THIS COMMITTEE CONSIDER, AND SUPPORT OUR REQUEST FOR THE APPROPRIATIONS OF $10.329 MILLION AS AUTHORIZED BY U.S. PUBLIC LAW 98-254 AND FURTHER REAUTHORIZED UNDER U.S. PUBLIC LAW 99-662. ALTHOUGH WE CONTINUE TO DEVELOP ADDITIONAL GROUNDWATER SOURCES, WATER CONSUMPTION HAS INCREASED AT A GREATER RATE THAN ANTICIPATED DUE TO THE RAPID CONSTRUCTION OF ADDITIONAL RESIDENTIAL, HOTELS AND OTHER COMMERCIAL ESTABLISHMENTS. OUR WATER PRODUCTION HAS INCREASED BUT IS INSUFFICIENT TO MEET THE DEMAND DUE NOT ONLY TO ACCELERATED ECONOMIC GROWTH, BUT ALSO DUE TO EXCESSIVE LEAKAGE AND DEFICIENCIES OF THE WATER TRANSMISSION AND DISTRIBUTION SYSTEMS. DETAILED PLANS FOR NEW WATER SOURCE DEVELOPMENT AND PLANS TO REPLACE MAIN TRANSMISSION AND DISTRIBUTION LINES HAVE BEEN DEVELOPED AND ARE NOW AWAITING FUNDING FOR CONSTRUCTION. WE REQUEST THAT THIS COMMITTEE CONSIDER, AND SUPPORT, OUR REQUEST FOR THE APPROPRIATION OF $10.329 MILLION AS AUTHORIZED BY U.S. PUBLIC LAW 98-254 FURTHER REAUTHORIZED UNDER U.S. PUBLIC LAW 99-662.

THE PROPOSED PROJECTS TO BE FUNDED ARE DETAILED IN ATTACHMENT I OF OUR BUDGET SUBMISSION. AS IN THE PAST, IT IS RECOMMENDED THAT THESE FUNDS, WHEN APPROPRIATED, BE ADMINISTERED BY THE DEPARTMENT OF THE INTERIOR. APPROVAL OF THIS REQUEST AND THE APPROPRIATION OF THE FUNDS WILL MOVE US CLOSER TO MEETING THE U.S. PUBLIC HEALTH DRINKING WATER STANDARDS.

THE SAIPAN SEAPORT CONTINUES TO BE A MAJOR THREAT TO CONTINUED ECONOMIC GROWTH. THE PRESENT DOCK WAS CONSTRUCTED BY THE

JAPANESE DURING THE LATE 1930'S. IT IS UNSAFE, SMALL, AND INCAPABLE OF ACCOMMODATING ADDITIONAL SEAPORT TRAFFIC. IF FURTHER DAMAGED BY STORM OR HEAVY USE, IT COULD FORCE THE CNMI TO AIRLIFT OR LIGHTER SEVERAL HUNDRED THOUSAND TONS OF MATERIALS, GOODS, SUPPLIES INCLUDING FOOD, WHICH WOULD BE AN IMPOSSIBLE TASK. THE SAIPAN COMPREHENSIVE PORT DEVELOPMENT PLAN PREPARED BY THE U.S. ARMY CORPS OF ENGINEERS ESTIMATES A COST OF $28,000,000 FOR ONSHORE AND $14,000,000 FOR OFFSHORE IMPROVEMENTS AND REPAIRS FOR A TOTAL PROJECT DEVELOPMENT COST OF $42,000,000. IT IS ESTIMATED THAT IF THE OFFSHORE AND ONSHORE PROJECTS ARE CONSTRUCTED ON OR ABOUT THE SAME TIME CONSIDERABLE SAVINGS OF APPROXIMATELY $5 MILLION WOULD BE REALIZED. THIS WILL BE ACHIEVED BY UTILIZING THE OFFSHORE DREDGING SPOILS FOR THE ONSHORE LANDFILL. IN THIS CONNECTION, THE CNMI HAS EARMARKED $12.5 MILLION OF ITS COVENANT CIP FUNDS FOR THE PROJECTS. WE RESPECTFULLY REQUEST THE COMMITTEE TO INCLUDE IN THE FISCAL YEAR 1989 APPROPRIATION, THE $14 MILLION AUTHORIZED UNDER U.S PUBLIC LAW 99-662, AND AN ADDITIONAL $15.5 MILLION TO FULLY FUND THE PROJECTS. THE CNMI HAS EARMARKED $12,500,000 OF COVENANT CIP FUNDS FOR PHASE-ONE ONSHORE IMPROVEMENTS COMMENCING EARLY IN FISCAL YEAR 1989. IN THE EVENT THE PROJECTS ARE NOT UNDERTAKEN IN A COORDINATED AND TIMELY CONSTRUCTION SCHEDULE, THE COST WILL BE INCREASED BY THE REQUIREMENT OF OBTAINING LANDFILL MATERIALS FROM ONSHORE QUARRIES. THE DETAILS OF THE SAIPAN PORT IMPROVEMENT PROJECTS ARE ENCLOSED AS ATTACHMENT II OF THE BUDGET SUBMISSION. THIS INFORMATION IS FURTHER SUPPORTED WITH THE NECESSARY FEASIBILITY STUDIES AND ENGINEERING DRAWINGS. THE COMMONWEALTH PORTS AUTHORITY IS READY TO PREPARE BIDDING DOCUMENTS AND ADVERTISE FOR CONSTRUCTION BIDS, WHEN ADEQUATE FUNDING IS AVAILABLE.

WE WISH TO THANK THIS COMMITTEE FOR ITS SUPPORT AND INCLUSION OF THE $12,100,000 OF FUNDS FOR WAR CLAIMS PAYMENT IN PUBLIC LAW 100-202. WE PRAY THAT THE COMMITTEE WILL SUPPORT AN APPROPRIATION OF THE BALANCE IN THE FISCAL YEAR 1989 BUDGET. WE

APPRECIATE THE $8,000,000 APPROPRIATION AS A PARTIAL FUNDING FOR PRIOR YEAR SERVICE BENEFITS. WE REQUEST THE COMMITTEE'S CONTINUED SUPPORT FOR THE APPROPRIATION OF THE BALANCE AFTER THE NEW ACTUARIAL STUDY HAS BEEN COMPLETED. IT IS OUR POSITION THAT WITH THAT APPROPRIATION THE FEDERAL GOVERNMENT WILL HAVE MET ITS LEGAL OBLIGATION TO FUND THE BENEFITS UNDER THE PROVISIONS OF SECTION 105(m) OF U.S PUBLIC LAW 99-239.

MR. CHAIRMAN AND MEMBERS OF THIS COMMITTEE. OUR REQUESTS FOR ADDITIONAL FUNDING ARE NOT NUMEROUS AND THE SUMS NOT GREAT. HOWEVER, WITH OUR BUDGET AND OUR LIMITED LOCAL REVENUES WE SEE NEED FOR THIS ASSISTANCE TO MEET THE MINIMUM STANDARDS FOR PUBLIC SERVICES TO AN AMERICAN COMMUNITY.

ONCE AGAIN, ON BEHALF OF THE NEW AMERICAN CITIZENS FROM THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS, I EXTEND OUR APPRECIATION FOR YOUR INTEREST AND SUPPORT IN THE CONTINUED GROWTH AND DEVELOPMENT OF OUR ISLANDS AND WE LOOK FORWARD TO CONTINUING THAT PARTNERSHIP IN THE FUTURE.

THANK YOU FOR THE OPPORTUNITY TO APPEAR BEFORE THIS COMMITTEE. MY STAFF AND I ARE PREPARED TO ANSWER ANY QUESTIONS THAT THE COMMITTEE MAY HAVE WITH RESPECT TO THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS.

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## STATEMENT OF BENJAMIN T. MANGLONA, PRESIDENT OF THE SENATE

IT IS WITH DEEP REGRET THAT URGENT LEGISLATIVE MATTERS ON SAIPAN HAVE PREVENTED US FROM ATTENDING THESE IMPORTANT DELIBERATIONS. HOWEVER, WE WISH TO EXTEND OUR WARMEST GREETINGS TO YOUR SUBCOMMITTEE, AND TO THIS CONGRESS, ON BEHALF OF OUR LEGISLATURE AND ALL THE PEOPLE OF THE NORTHERN MARIANAS. THANK YOU FOR INVITING US TO TAKE PART IN THESE IMPORTANT HEARINGS. IT WAS OUR INTENTION TO ACCOMPANY OUR LIEUTENANT GOVERNOR, THE HONORABLE PEDRO A. TENORIO, AT TODAY'S HEARING TO SHOW OUR FULL SUPPORT FOR HIS BUDGET PRESENTATION. IT IS, THEREFORE, OUR

SINCERE HOPE THAT WE WILL CONTINUE TO MERIT THE SUPPORT THAT OUR YOUNG COMMONWEALTH GOVERNMENT HAS BEEN SO FORTUNATE TO RECEIVE FROM YOUR SUBCOMMITTEE IN PREVIOUS YEARS.

## RELATIONSHIP WITH THE UNITED STATES

MANY CENTURIES OF RULE BY FOREIGN NATIONS, INCLUDING SPAIN, GERMANY, AND JAPAN, CULMINATED WHEN OUR ISLANDS WERE MADE A UNITED NATIONS TRUSTEESHIP AFTER WORLD WAR TWO. OUR POLITICAL SOVEREIGNTY WAS, IN EFFECT, HELD IN ABEYANCE. IT WAS NEVER SURRENDERED TO ANYONE.

IN 1975, NEGOTIATIONS WERE CONCLUDED TO CREATE A UNIQUE POLITICAL RELATIONSHIP TO END THE POSTWAR U.N. TRUSTEESHIP. A COVENANT TO ESTABLISH A COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS IN POLITICAL UNION WITH THE UNITED STATES WAS APPROVED BY OUR PEOPLE IN A U.N.-OBSERVED PLEBISCITE, THE U.S. CONGRESS, AND THE PRESIDENT OF THE UNITED STATES.

THE TEN ARTICLES CONTAINED IN THE COVENANT PROVIDES FOR A RELATIONSHIP THAT CAN BEST DESCRIBED AS SHARED SOVEREIGNTY -- NOT OUTRIGHT ANNEXATION -- WHICH WAS THE CASE FOR ALL OTHER INSULAR POSSESSIONS OF THE UNITED STATES. IN OTHER WORDS, FOR THE FIRST TIME IN THE HISTORY OF U.S. TERRITORIAL AFFAIRS, THE FEDERAL GOVERNMENT AGREED TO AN UNAMBIGUOUS LIMITATION ON ITS POWER. THE COVENANT TAKES SPECIAL NOTE OF THIS, AND CONSEQUENTLY WE HAVE OUR OWN TAX SYSTEM, CONTROL OUR OWN IMMIGRATION. WE HAVE A BICAMERAL LEGISLATURE SO OUR ISLANDS CAN SHARE LAWMAKING AUTHORITY IN THE COMMONWEALTH SENATE. ONLY CERTAIN PROVISIONS OF THE U.S. CONSTITUTION, STATUTES AND ADMINISTRATIVE REGULATIONS HAVE EFFECT IN THE CNMI ONLY BECAUSE OUR PEOPLE VOLUNTARILY CONSENTED TO THEIR APPLICATION THROUGH THE COVENANT. IN A SIMILAR MANNER, THE TERRITORIAL CLAUSE OF THE U.S. CONSTITUTION WAS NOT INTENDED TO APPLY IN THE NORTHERN MARIANA ISLANDS.

WE ARE, THEREFORE, VERY CONCERNED OVER HOW THE DEPARTMENT OF THE INTERIOR, OTHER FEDERAL AGENCIES, AND FEDERAL COURTS ARE INTERPRETING THE POLITICAL SOVEREIGNTY OF OUR ISLANDS PURSUANT TO THE COVENANT. WE ARE VERY CONCERNED ABOUT THE PROLIFERATION OF

U.S. STATUTES THAT FEDERAL AGENCIES AND THE U.S. CONGRESS HAS ATTEMPTED TO APPLY IN THE COMMONWEALTH, WHICH ARE CONTRARY TO OUR RIGHT TO FULL INTERNAL SELF-GOVERNMENT.

THE COVENANT NEVER INTENDED FOR THE UNITED STATES TO BECOME INVOLVED IN MATTERS OF STRICTLY LOCAL CONCERN. WHEN WE ENTERED INTO NEGOTIATIONS WITH THE UNITED STATES, WE DID SO AS AN EQUAL BARGAINING PARTNER. OUR POLITICAL SOVEREIGNTY WAS STILL INTACT. TWO SOVEREIGN PEOPLES SAT ACROSS FROM ONE ANOTHER AT THE BARGAINING TABLE. THE UNITED STATES WAS NOT NEGOTIATING WITH A STATE, OR A COUNTY GOVERNMENT. THE UNITED STATES WAS NEGOTIATING WITH A SOVEREIGN PEOPLE. SOVEREIGN PEOPLE DO NOT HAVE TO CLAIM IMMUNITY FROM THE U.S. CONSTITUTION'S 11TH AMENDMENT, AS THE 9TH CIRCUIT COURT NOW INSISTS IS OUR CASE TODAY. SOVEREIGN PEOPLE HAVE IMMUNITY TO FEDERAL SUIT AS A MATTER OF COMMON LAW RIGHT. THE SOVEREIGNTY OF THE PEOPLE OF THE NORTHERN MARIANAS CANNOT BE RELEGATED TO THE SECOND CLASS STATUS OF A COUNTY GOVERNMENT.

## RELATED FINANCIAL ISSUES

THE INTEGRITY OF THE COVENANT RELATES DIRECTLY TO THE BUDGET BEING CONSIDERED BY YOUR SUBCOMMITTEE. THE UNITED STATES HAS FINANCIAL OBLIGATIONS TO THE COMMONWEALTH UNDER THE COVENANT. SECTION 701 OBLIGATES THE UNITED STATES TO PROVIDE SUFFICIENT FINANCIAL ASSISTANCE TO PROVIDE MEANINGFUL ECONOMIC PROGRESS. WE HAVE TRIED TO KEEP UP WITH THE RAPID PACE OF DEVELOPMENT IN THE COMMONWEALTH BY ISSUING A $140,000,000 TAX EXEMPT BOND TO MEET THE IMMEDIATE AND CRITICAL NEED TO PROVIDE, AMONG OTHER THINGS, ADEQUATE POWER AND WATER FOR OUR PEOPLE. TO OBTAIN THE BOND, IT WAS NECESSARY TO PLEDGE AS COLLATERAL THE PAYMENTS THE UNITED STATES WAS OBLIGATED TO PAY UNDER SECTION 702 OF THE COVENANT.

HOWEVER, TO OUR GREAT DISMAY AND DISAPPOINTMENT, OUR AGED, PATCHED-UP INFRASTRUCTURE NOW FACES A VERY CRITICAL CRISIS BECAUSE OF CONTINUED DELAYS IN OBTAINING THE FIRST DRAWDOWN OF PROCEEDS FROM THE BOND. WHAT STARTED AS A CREATIVE FINANCING EFFORT TO SUPPORT OUR UNPRECEDENTED AND UNANTICIPATED GROWTH HAS

UNFORTUNATELY TURNED INTO A SERIES OF DELAYS. AS A CONDITION TO ALLOW THESE COVENANT FUNDS TO SERVE AS COLLATERAL, THE DEPARTMENT OF THE INTERIOR REQUIRED OUR GOVERNMENT TO ACCEPT TWO SUBSIDIARY AGREEMENTS. THIS WAS DONE EVEN THOUGH OUR COMMONWEALTH WAS ENTITLED TO, AND THE UNITED STATES WAS OBLIGATED TO PAY, THE PROCEEDS OF SECTION 702 WITHOUT CONDITION BY THE TERMS OF THE COVENANT. TO US IN THE COMMONWEALTH, SUCH MANIPULATION AND RESULTING FUNDING DELAYS CAUSED BY THE DEPARTMENT OF THE INTERIOR INSULTS THE VERY ESSENCE OF OUR COVENANT RELATIONSHIP WITH THE UNITED STATES. BECAUSE WE HAVE NOT YET BEEN ABLE TO SATISFY ALL OF THE CONDITIONS FOR RELEASING SUCH FUNDS, OUR PEOPLE ARE OFTEN LEFT WITHOUT WATER SERVICES FOR MOST OF THE DAY AND NIGHT, AND OFTEN WITHOUT POWER.

IN ADDITION, WHILE INTERIOR OFFICIALS PROMISED MONTHS AGO AN EARLY DRAWDOWN OF THE FUNDS, NEW CONDITIONS HAVE BEEN IMPOSED. YET, THE FACT REMAINS: 1) AS REQUIRED BY INTERIOR, WE ARE WORKING HARD TO COMPLETE A SEVERY-YEAR CAPITAL DEVELOPMENT PLAN FOR THE BOND; 2) WE ARE IN THE PROCESS OF PRIVATIZING OUR UTILITIES AS REQUIRED BY INTERIOR; AND, 3) WE ARE WORKING TOWARDS FULL COST RECOVERY AS REQUIRED BY INTERIOR. THEREFORE, WE RESPECTFULLY REQUEST THAT YOUR SUBCOMMITTEE DO EVERYTHING POSSIBLE TO HELP UNTANGLE THIS PROBLEM WITH THE DEPARTMENT OF THE INTERIOR REGARDING OUR BOND ISSUE. PLEASE HELP US RECEIVE OUR PROMISED COVENANT FUNDS. OTHERWISE, THE CONTINUING WITHHOLDING OF THESE FUNDS WILL SOON JEOPARDIZE ALL THE DEVELOPMENT AND PROGRESS THAT HAS BEEN MADE TO DATE.

## WATER DEVELOPMENT ON SAIPAN

THE PROBLEM OF SAIPAN'S WATER SHORTAGE IS OUR NUMBER ONE PRIORITY IN THE COMMONWEALTH. WATER RATIONING HAS BEEN A FACT OF LIFE ON SAIPAN FOR MORE THAN TEN YEARS. ALTHOUGH SAIPAN'S POPULATION HAS DOUBLED SINCE 1980, AND DESPITE A RAPIDLY GROWING TOURIST INDUSTRY, THE AVAILABILITY OF WATER ON SAIPAN HAS NOW REACHED CRISIS PROPORTIONS. IN MANY AREAS OF SAIPAN, WATER IS AVAILABLE ONLY FOR SEVERAL HOURS A DAY. LOCAL RESIDENTS AND

TOURISTS ALIKE BATHE FROM BUCKETS. DIRTY DISHES AND LAUNDRY OFTENTIMES CANNOT BE WASHED. TOILETS OFTEN REMAIN UNFLUSHED. MOST OF SAIPAN'S WATER CANNOT BE DRUNK FROM THE TAP. MOST OF THE ISLAND'S WATER TRANSMISSION LINES ARE CRACKED AND LEAKING FROM OLD AGE AND RUST, AND ABOUT 50% TO 60% OF THE WATER PUMPED IS LOST THROUGH LEAKAGE IN THESE BAD PIPES. CONSEQUENTLY, MOST PIPES ARE CONTAMINATED WITH GROUND WATER. THE CONTAMINATED GROUND WATER IS PIPED TO THE CONSUMER MIXED WITH CONTAMINATED RUST AND HEALTH THREATENING BACTERIA.

FOR THIS REASON, THE COMMONWEALTH LEGISLATURE CREATED A SPECIAL JOINT COMMITTEE ON WATER RESOURCES IN MARCH 1988 TO ASSIST OUR ADMINISTRATION IN FINDING PRACTICAL SOLUTIONS TO THIS SEVERE PROBLEM. THE JOINT COMMITTEE'S FINDINGS WILL BE PUBLISHED IN A REPORT EXPECTED IN A FEW WEEKS, WHICH WILL INCLUDE SOME INITIAL FUNDING ESTIMATES. WORK SHOULD BEGIN AT THE EARLIEST POSSIBLE DATE ON A PHASE-BY-PHASE BASIS. IN THE INTERIM, HOWEVER, SEVERAL FACTS REMAIN UNDISPUTED: 1) WATER TRANSMISSION LINES AND EQUIPMENT ARE A PATCH WORK AFFAIR AND NEED UPGRADING; 2) WATER INFRASTRUCTURE LAGS FAR BEHIND SAIPAN'S RAPID PACE OF DEVELOPMENT; 3) ALTERNATIVE WATER SOURCES DESPERATELY NEED TO BE SOUGHT AND DEVELOPED.

FORTUNATELY, THE FIRST COMPLETE SCIENTIFIC SURVEY OF SAIPAN'S WATER SOURCES IS ABOUT TO BEGIN BY THE U.S. GEOLOGICAL SURVEY. WHILE WE ARE NOT SURE WHEN THE CONTRACT WITH USGS WILL BE COMPLETED, WE EXPECT SOME TEST HOLES TO BE DUG SOON, WHICH CAN BE CONVERTED INTO NEW WELLS. BUT IT WILL UNDOUBTEDLY TAKE AN OVERCEILING APPROPRIATION FOR THESE VITAL NEEDS, AND WE SOLICIT YOUR SUPPORT IN THIS REGARD.

## PORT DEVELOPMENT

OUR COMMERCIAL PORT AT SAIPAN IS THE MAIN DOCK FOR ALL SHIPPING ACTIVITIES IN THE NORTHERN MARIANAS. YET WE ARE WORKING WITH A PORT INFRASTRUCTURE THAT WAS BUILT BY THE JAPANESE, LEFT OVER FROM WORLD WAR TWO, AND REBUILT BY THE U.S. MILITARY. AT PRESENT IT IS IN AN EXTREME STATE OF DISREPAIR AND POSES HAZARDS

TO ALL USERS. MEANWHILE, SHIPPING ACTIVITIES AT OUR SAIPAN PORT HAVE MORE THAN DOUBLED IN THE PAST THREE YEARS, AND THIS UPWARD TREND UNDOUBTEDLY CONTINUE IN THE FORESEEABLE FUTURE. THREE OR FOUR SHIPS ARE OFTEN MOORED OUTSIDE THE SAIPAN HARBOR WAITING THEIR TURN TO DOCK AT OUR OBSOLETE AND CONGESTED PORT AREA. SHIPS ALSO REPORT TOUCHING BOTTOM IN THE SAIPAN CHANNEL ENTRANCE.

THEREFORE, THE ASSISTANCE WE URGENTLY NEED IS TWOFOLD: 1) TO DREDGE SAIPAN'S ENTRANCE CHANNEL AND THE TURNING BASIN; AND, 2) TO EXPAND THE BERTHING, DOCK, AND RELATED SHORESIDE FACILITIES.

SEVERAL YEARS AGO THIS CONGRESS AUTHORIZED $14,000,000 TO BE APPROPRIATED FOR THE BADLY-NEEDED DREDGING OF THE ENTRANCE CHANNEL AND TURNING BASIN. THE ARMY CORPS OF ENGINEERS ALSO RECENTLY COMPLETED THE REQUIRED FEASIBILITY STUDY. HOWEVER, A STUDY OF THE CORPS OF ENGINEERS SUBSEQUENTLY CONCLUDED THAT THIS PROJECT WAS NOT JUSTIFIABLE, WHICH WILL HAVE A DEVASTATING EFFECT ON OUR ECONOMY. INDEED, WE DO NOT UNDERSTAND THE CRITERIA THAT THE ARMY CORPS OF ENGINEERS USED IN ARRIVING AT THIS NEGATIVE RECOMMENDATION, EVEN THOUGH THE CORPS OF ENGINEERS STUDY NOTED THAT THE U.S. BALANCE OF PAYMENTS WOULD BE BENEFICIALLY AFFECTED BY THIS PORT IMPROVEMENT PROJECT.

THE COMMONWEALTH PORTS AUTHORITY HAS ALREADY COMPLETED THE CONSTRUCTION AND DESIGN DOCUMENTS FOR THESE IMPROVEMENTS, WHICH WILL COST AN ESTIMATED $28,000,000 TO BUILD AND THREE YEARS TO COMPLETE. IF THE DREDGING PROJECTS PROCEED AT THE SAME TIME WITH THE BERTHING AND DOCK IMPROVEMENTS, A NET SAVINGS OF $6,000,000 TO $8,000,000 WILL BE REALIZED. IN THIS MANNER, DREDGED MATERIALS CAN BE UTILIZED AS FILL MATERIAL FOR THE DOCK AND BERTHING FACILITIES, ACCORDING TO ARMY ENGINEERING ESTIMATES. IF THESE PROJECTS ARE COMPLETED SEPARATELY, IT WILL COST ABOUT $42,000,000 TO ACCOMPLISH BOTH PROJECTS. ON THE OTHER HAND, TO COMPLETE BOTH PROJECTS TOGETHER WILL REQUIRE ABOUT $35,000,000 -- AN ESTIMATED SAVINGS OF $7,000,000.

IN SHORT, THE IMPORTANCE OF THESE PROJECTS CANNOT BE OVEREMPHASIZED DUE TO THE OLD AGE AND DANGEROUS CONDITION OF OUR

PRE-WORLD WAR TOW DOCK FACILITIES. IN FACT, PART OF THE DOCK HAS ALREADY COLLAPSED DUE TO THE USE OF HEAVY EQUIPMENT, BUT FORTUNATELY NO ONE WAS INJURED. WE, THEREFORE, URGE YOUR SUPPORT FOR AN OVERCEILING APPROPRIATION REGARDING THE SAIPAN PORT AND HARBOR IMPROVEMENT PROJECT. JUST AS THE NEW COMMONWEALTH HEALTH CENTER BECAME A REALITY THROUGH AN OVERCEILING APPROPRIATION, THE PRECISION NEED FOR CERTAIN PROJECTS SOMETIMES DICTATES URGENT ACTION WHICH MAY BE BEYOND THE MOST CAREFULLY PLANNED BUDGET PROJECTIONS.

THE PORT AT THE ISLAND OF TINIAN, HOWEVER, REQUIRES A DIFFERENT SOLUTION BECAUSE OF A MILITARY JOINT-USE AGREEMENT TINIAN'S BREAKWATER, BUILT BY THE SEABEES IN 1944, HAS DETERIORATED SO MUCH THAT IT CANNOT HOLD BACK THE SEA DURING STORMS. PRIVATE AND COMMERCIAL VESSELS, INCLUDING A FLEET OF U.S. TUNA BOATS, ARE ALWAYS IN IMMINENT DANGER DURING TYPHOONS. UNDER OUR LEASE AGREEMENT, MAINTENANCE AND REPAIR OF THE BREAKWATER IS THE RESPONSIBILITY OF THE U.S. GOVERNMENT. IN SUMMARY, THESE CONTRACTUAL RESPONSIBILITIES NEED TO BE FULFILLED.

ANOTHER YET-TO-BE FULFILLED REQUIREMENT OF THE TINIAN LEASE AGREEMENT IS THE CREATION OF A JOINT CIVIL-MILITARY COUNCIL WITH THE NAVY'S PLANS TO BUILD THREE RADAR TRACKING STATIONS ON TINIAN, THE NEED TO COORDINATE PLANNING THROUGH THIS COUNCIL IS IMPERATIVE.

FURTHERMORE, THE U.S. MILITARY HAS ALREADY LEASE TWO-THIRDS OF TINIAN. AS THE STABILITY OF U.S. FORCES IN THE PHILIPPINES BECOMES QUESTIONABLE FOR THE FUTURE, WE IN THE NORTHERN MARIANAS STAND READY TO DO OUR PART FOR OUR MUTUAL DEFENSE AND SECURITY. WE, THEREFORE, WELCOME ANY DECISION BY THE MILITARY TO EXERCISE ITS LAND USE OPTION UNDER THE TERMS OF THE COVENANT AGREEMENT IN THIS REGARD.

THE ISLAND OF ROTA IS NOT BLESSED WITH A NATURAL HARBOR LIKE SAIPAN AND TINIAN. ROTA IS PRACTICALLY SURROUNDED BY A REEF WITH A FEW NARROW CHANNEL ENTRANCES. LARGE SHIPS CANNOT EVEN ENTER THE PORT AREA. COMMERCE IS HAMPERED BY UNRELIABLE SHIPPING

SERVICE, AND THE COST OF CONSUMABLE ITEMS, EQUIPMENT AND SUPPLIES IS ABOUT 30% HIGHER IN ROTA THAN NEIGHBORING ISLANDS DUE TO HIGH FREIGHT RATES AND RELATED TRANSSHIPMENT COSTS.

ROTA'S MAIN PORT AT WEST HARBOR WAS BUILT BY THE JAPANESE BEFORE WORLD WAR TWO TO AUGMENT THE ISLAND'S SUGAR INDUSTRY AND RELATED AGRICULTURAL ACTIVITIES. SUGAR AND OTHER RAW MATERIALS WERE LOADED ONTO LARGE VESSELS ANCHORED OFFSHORE SINCE THE HARBOR WAS TOO SMALL FOR MOST SHIPS TO ENTER. NO IMPROVEMENTS WERE MADE AFTER THE WAR, OR DURING THE 40 YEAR TRUSTEESHIP, DESPITE NUMEROUS PUBLIC OUTCRIES. FINALLY, IN 1984, IMPROVEMENTS WERE MADE POSSIBLE BY THE U.S. ARMY CORPS OF ENGINEERS UNDER ITS DISCRETIONARY FUNDING AUTHORITY WHICH WAS SUPPLEMENTED BUY LOCAL CNMI FUNDING. EVEN WITH THESE IMPROVEMENTS, HOWEVER, LARGE OCEAN-GOING VESSELS STILL CANNOT BE ACCOMMODATED.

FUTURE PLANS FOR THE ROTA HARBOR INCLUDE WIDENING THE ENTRANCE CHANNEL, CONSTRUCTION OF A BREAKWATER, DREDGING THE TURNING BASIN, EXPANDING THE PIER, AND OTHER RELATED FACILITIES. THIS FUNDING REQUIREMENT AMOUNTS TO ABOUT $4,000,000, WILL MAKE THE HARBOR NAVIGABLE FOR LARGER VESSELS, AND GREATLY IMPROVE COMMERCE BETWEEN THE ISLANDS. SUCH A REDUCTION IS THE PRESENT HIGH COST OF ESSENTIAL GOODS AND MATERIALS WILL GREATLY BENEFIT OUR PEOPLE, WHO NOW PAY THE HIGHEST CONSUMER PRICES IN THE COMMONWEALTH, AND FROM A LOWER PER CAPITA INCOME BASE.

## WAR CLAIMS

THE PEOPLE OF THE NORTHERN MARIANAS WERE CAUGHT BETWEEN TWO ARMIES DURING WORLD WAR TWO. MANY SUFFERED AND DIED FROM BOMBARDMENT, HUNGER, AND MALNUTRITION. ALL FOOD CROPS AND PERSONAL BELONGINGS WERE DESTROYED. WHILE WE ARE THANKFUL FOR THE BRAVE AMERICAN SOLDIERS, SAILORS, AND MARINES, WHO FOUGHT SO COURAGEOUSLY TO LIBERATE US 44 YEARS AGO, FOR MANY YEARS WE WERE DISMAYED BECAUSE NEITHER JAPAN OR THE U.S. WOULD ADMIT RESPONSIBILITY FOR OUR LOSSES AND SUFFERING.

FINALLY, IN 1971, AFTER NUMEROUS PETITIONS TO THE U.S. CONGRESS AND UNITED NATIONS, THE MICRONESIAN WAR CLAIMS

COMMISSION WAS CREATED. OVER $34,300,000 WAS ADJUDICATED FOR THE ENTIRE TRUST TERRITORY UNDER TITLE I, AND $32,600,000 FOR TITLE II CLAIMS. WHILE PART OF THESE CLAIMS WERE PAID BY THE UNITED STATES, SOME $24,000,000 OF TITLE STILL REMAINS UNPAID, ALTHOUGH HALF HAS ALREADY BEEN APPROPRIATED BY THE U.S. CONGRESS. TO COMPLICATE MATTERS, WE WERE INFORMED BY INTERIOR DEPARTMENT OFFICIALS IN MARCH THAT NO FUNDING WAS PROVIDED FOR ADMINISTRATIVE COSTS TO DISTRIBUTE THESE FUNDS. DOI IS NOW IN THE PROCESS OF DETERMINING FROM FORMER TRUST TERRITORY GOVERNMENT RECORDS WHICH OF THE 19,000 RECIPIENTS ARE ELIGIBLE FOR THE CLAIMS, WHICH ARE STILL LIVING, AND IF NOT, THE DETERMINATION OF THEIR HEIRS.

MR. CHAIRMAN, 1988 MARKS THE 44TH MEMORIAL ANNIVERSARY OF THE INVASION OF SAIPAN BY U.S. FORCES. MANY OF OUR PEOPLE WITH LEGITIMATE CLAIMS HAVE ALREADY DIED; THOSE WHO REMAIN HAVE ONLY A SHORT LIFETIME STILL REMAINING. THE LONG OVERDUE WAR CLAIMS COMPENSATION SET FORTH UNDER U.S. PUBLIC LAW 95-134 DESERVES YOUR MOST SYMPATHETIC CONSIDERATION.

### LAND GRAND ENDOWMENT

THE NORTHERN MARIANAS COLLEGE HAS EXPERIENCED IMPRESSIVE GROWTH IN RECENT YEARS. LAST YEAR OUR FORMER HOSPITAL WAS CONVERTED INTO A COLLEGE CAMPUS AND AWARDED LAND GRANT STATUS WHICH OPENS THE DOOR TO ORGANIZED TECHNICAL ASSISTANCE. WE ARE STILL WAITING, HOWEVER, FOR CONGRESS TO APPROPRIATE THE LONG-AWAITED $3,000,000 FOR THIS EDUCATIONAL EFFORT. IF APPROVED, OUR COLLEGE WILL SOON BE ABLE TO DIRECTLY ASSIST IN THE EXPANSION OF OUR AGRICULTURAL SECTOR, AND HELP MEET THE DEMAND FOR FRESH FRUITS AND VEGETABLES FOR OUR FAST GROWING VISITORS INDUSTRY AND LOCAL MARKET.

### BROOKS AMENDMENT

OUR COMMONWEALTH ISLANDS ARE ABOUT THE SAME DISTANCE FROM WASHINGTON, D.C., AS CAIRO, EGYPT. BECAUSE OF THIS GREAT DISTANCE, LOGISTICAL COMPLICATIONS AND RELATED TRANSPORTATION

COSTS, WE ARE VERY CONCERNED INDEED ABOUT THE POSSIBLE ADVERSE IMPACT OF THE BROOKS AMENDMENT'S "BUY AMERICAN" REQUIREMENT. IF APPLIED TO OUR ISLANDS, THE COST OF URGENTLY NEEDED CONSTRUCTION PROJECTS WOULD SKYROCKET AND HAVE A DRASTIC IMPACT ON PENDING INFRASTRUCTURE PROJECTS. HOWEVER, SINCE SUCH FUNDING UNDER THE COMMONWEALTH COVENANT IS CONSIDERED "LOCAL REVENUES", WE FEEL AN EXEMPTION SHOULD BE MADE FORM THE BROOKS AMENDMENT FOR THE CNMI.

## MELON FY ERADICATION

OUR ISLANDS ARE FERTILE AND ARABLE, AND IF DEVELOPED CAN PROVIDE US WITH AN ABUNDANCE OF FRUITS, VEGETABLES AND FOOD CROPS FOR OUR RESIDENTIAL AND TOURIST POPULATION. BUT THIS POTENTIAL IS THREATENED BY THE SERIOUS INFESTATION OF THE HARMFUL MELON FLY, WHICH HAS SPREAD FROM GUAM, NORTHWARD TO ROTA AND THE REST OF THE NORTHERN MARIANAS. IN 19083, THE GOVERNMENTS OF GUAM AND THE CNMI JOINTLY REQUESTED ASSISTANCE FROM EXPERTS OF ;USDA'S PLANT PROTECTION OFFICES. THEY MADE AN INVESTIGATION AND RECOMMENDATIONS WERE MADE. ON ROTA, FOR EXAMPLE, THEY FOUND THE PROBLEM SO SERIOUS THAT A QUARANTINE WAS IMPOSED ON ALL OUR EXPORTS FIVE YEAR AGO, WHICH, NEEDLESS TO SAY, HAS HAD A MOST NEGATIVE EFFECT ON OUR FRAMERS.

USDA EXPERTS SAY THE SOLUTION TO THIS PROBLEM IS TO ATTACH THE MELON FLY SIMULTANEOUSLY THROUGHOUT THE COMMONWEALTH. THEY HAVE RECOMMENDED SEVERAL ERADICATION METHODS AND ESTIMATED OVER A YEAR AGO THAT MORE THAN $4,000,000 WILL BE NEEDED TO ACCOMPLISH THIS EFFORT IN A TWO TO THREE YEAR PERIOD.

HOWEVER, AS LONG AS THE MELON FLY EXISTS ON NEARBY GUAM, IT WILL ALWAYS BE A THREAT TO ISLANDS TO THE NORTH. FOR THESE REASONS, THEREFORE, WE WISH TO ASK YOUR SUBCOMMITTEE TO PROVIDE AN OVERCEILING APPROPRIATION FOR A SIMULTANEOUS ERADICATION PROJECT FOR NOT ONLY THE CNMI BUT GUAM AS WELL. IN THIS MANNER, WE CAN BEGIN TO REBUILD OUR AGRICULTURE, AND AGAIN MAKE IT A VIABLE INDUSTRY FOR OUR PEOPLE.

## AMERICAN MEMORIAL PARK

ALL THE COURAGEOUS AMERICAN SOLDIERS, SAILORS, AND MARINES WHO FOUGHT SO VALIANTLY, AND THOSE WHO MADE THE SUPREME SACRIFICE FOR FREEDOM DURING THE LIBERATION OF SAIPAN DESERVE OUR PRAISE AND HONOR. AS A CONSTANT REMINDER TO ALL OF US, U.S. PUBLIC LAW 95-348 AUTHORIZED $3,000,000 TO BE APPROPRIATED FOR THE DESIGN AND CONSTRUCTION OF THE AMERICAN MEMORIAL PARK.

MANY YEARS AGO, JAPAN, KOREA, AND OKINAWA BUILT SUITABLE MEMORIALS TO HONOR THEIR WAR DEAD IN THE NORTHERN MARIANAS. AS AMERICANS, IT IS ONLY MOST PROPER AND FITTING THAT A SIMILAR MEMORIAL BE BUILT BY OUR OWN NATION. IF THIS SUBCOMMITTEE WOULD URGE THE FULL CONGRESS TO CONSIDER AN OVERCEILING REQUEST TO HONOR THE MANY THOUSANDS OF AMERICAN SERVICEMEN WHO DIED FOR FREEDOM ON OUR ISLANDS, FUTURE GENERATIONS WILL BETTER REMEMBER THE SIGNIFICANCE OF THAT GREAT CONFLICT.

## WAIVER OF FEMA CONTRIBUTION

IN THE PAST 18 MONTHS, SEVERAL MAJOR TYPHOONS HIT OUR ISLANDS RESULTING IN PRESIDENTIAL DECLARATIONS OF THE COMMONWEALTH AS A DISASTER AREA. ASSISTANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) WAS IMMEDIATELY IMPLEMENTED, WHICH WAS PREDICATED UPON A 25% LOCAL ASSISTANCE CONTRIBUTION. HOWEVER, WHILE WE RECOGNIZE THE FAIRNESS OF THE 25% REQUIREMENT, THE IMPACT OF THESE REPEATED TYPHOONS, PARTICULARLY ON OUR INFRASTRUCTURE, HAS LEFT OUR GOVERNMENT IN A VERY DIFFICULT FINANCIAL POSITION.

IN ADDITION, BECAUSE WE ARE LOCATED IN A TYPHOON-PHRONE AREA, IN THE LONG RUN MANY FEDERAL DOLLARS COULD BE SAVED IF EXISTING FEMA REGULATIONS COULD BE MODIFIED TO ALLOW CONSTRUCTION OF A MORE PERMANENT TYPE OF HOUSING, RATHER THAN THE "TEMPORARY" HOUSES WHICH ARE ALWAYS VULNERABLE TO THE NEXT TYPHOON. BECAUSE OF THE FREQUENCY OF SUCH MAJOR TYPHOONS IN THE WESTERN PACIFIC, WE SHOULD SPEND THESE FEDERAL DOLLARS FOR THE SAFEST, MOST DURABLE AND LONG LASTING HOUSING AVAILABLE . TO OUR PEOPLE, THIS

IS THE BEST COMMON SENSE SOLUTION TO THIS EVER-PRESENT THREAT.

IN ADDITION, WHILE FEMA REGULATIONS COMPENSATE DAMAGES TO HOMES AND PERSONAL PROPERTY, OUR PEOPLE FULL-TIME SUBSISTENCE FARMERS SUFFER TREMENDOUSLY FROM MAJOR TYPHOONS. IN THIS CONNECTION, IF FEMA ASSISTANCE COULD BE MADE AVAILABLE IN THE FORM OF SEEDS, FERTILIZER, DUSTING SERVICES, IT WOULD GREATLY AID OUR PEOPLE IN RECOVERING FROM SUCH NATURAL DISASTERS.

## RECAPITULATION

MR. CHAIRMAN, WE ARE FULLY AWARE OF THE DIFFICULT STRUGGLE WITH THE FEDERAL DEFICIT. AT THE SAME TIME YOUR SUBCOMMITTEE HAS ALWAYS BEEN RECEPTIVE TO OUR URGENT AND MOST PRESSING NEEDS.

TO BRIEFLY RECAP, THE FOLLOWING KEY AREAS ARE WHERE THE COMMONWEALTH HAS CRITICAL CONCERNS THAT NEED TO BE INCLUDED IN THE FY 1989 APPROPRIATIONS AS OVERCEILING REQUESTS:

| | |
|---|---|
| SAIPAN WATER DEVELOPMENT........... | $ 5,000,000 |
| SAIPAN HARBOR AND PORT, PHASE I.... | 35,000,000 |
| TINIAN HARBOR & BREAKWATER......... | 4,000,000 |
| ROTA PORT & HARBOR................. | 4,000,000 |
| MICRONESIAN WAR CLAIMS............. | 12,500,000 |
| COLLEGE LAND GRANT ENDOWMENT....... | 3,000,000 |
| MELON FLY ERADICATION PROGRAM...... | 5,000,000 |
| AMERICAN MEMORIAL PARK............. | 3,000,000 |

## CONCLUSION

MR. CHAIRMAN, YOUR SUBCOMMITTEE HAS ALWAYS BEEN VERY RECEPTIVE AND UNDERSTANDING TO OUR NEEDS IN THE PAST IN ASSISTING OUR NEW COMMONWEALTH IN PROVIDING VITAL PUBLIC SERVICES TO OUR PEOPLE AND GROWING PRIVATE SECTOR. IT IS IN THIS SPIRIT THAT WE CONFIDE TO YOU OUR SPECIAL NEEDS AND CONCERNS WHICH HOLD THE KEY TO OUR CONTINUED GROWTH AND DEVELOPMENT. EQUALLY IMPORTANT ARE THE FRANK AND CANDID DISCUSSIONS REGARDING THE DIFFICULTIES WE ARE NOW EXPERIENCING WITH OUR RELATIONSHIP WITH THE FEDERAL GOVERNMENT IN GENERAL, AND THE DEPARTMENT OF THE INTERIOR IN

PARTICULAR, IN CONNECTION WITH THE LARGELY MISINTERPRETED COMMONWEALTH COVENANT AGREEMENT.

INDEED, WE WISH TO CONTINUE OUR RELATIONSHIP WITH THE UNITED STATES, BUT CERTAINLY NOT AS A CONTINUAL SUITOR FOR PROMISED FUNDING. THE PAYMENTS THAT WE HAVE REQUESTED TODAY ARE MORAL AND LEGAL OBLIGATIONS OF THE UNITED STATES. WE CONSIDER THEM TO BE BASIC NECESSITIES THAT ARE VITAL FOR OUR CONTINUED DEVELOPMENT, UPON WHICH RESTS AMERICA'S PRIMARY INTERESTS OF PEACE AND SECURITY IN THE WESTERN PACIFIC.

ON BEHALF O THE PEOPLE OF THE ISLANDS OF THE NORTHERN MARIANAS -- THE NEWEST MEMBERS OF THE AMERICAN POLITICAL FAMILY -- PLEASE ACCEPT OUR DEEPEST THANK YOU AND "SI YUUS MA'ASE."

## INTRODUCTION OF ASSOCIATES

Lieutenant Governor TENORIO. Thank you, Mr. Chairman, and members of the committee. We are grateful once again to be invited and to be given the opportunity to testify in front of your committee. Governor Tenorio sends his regrets for not being able to attend. He asked me to extend his "hafa adai" and his thank you to you, Mr. Chairman, and the committee, for giving us this opportunity to present our testimony this morning.

I have with me the director of finance, Mr. Eloy Inos, and Mr. James Ripple from the planning and budget office. We also are accompanied by several of our staff from various agencies.

Mr. Chairman, we have submitted for the record our long and detailed statement regarding the budget. At this time I will attempt to summarize and highlight only the most important items.

First, let me express our thank you to you and your committee for always being so sensitive and concerned about our problems and the welfare of the citizens of the commonwealth. On every single issue that we have been able to bring to your attention we always get a response very graciously and effectively.

Senator JOHNSTON. Thank you, Governor. We feel a very strong proprietary interest in the Northern Marianas, because we were there when you were born. We want to be sure that things are successful and prosperous in the Northern Marianas. You keep us well informed and we will help you in every way we can.

Lieutenant Governor TENORIO. Thank you, Mr. Chairman.

We especially appreciate your effort to try and speed up the process of planning and construction for the Saipan Harbor. We thought that particular project was a very high priority in our list of projects, and we appreciate the effort that you have made to convince the Corps of Engineers to expedite the planning process.

### COVENANT SPECIAL REPRESENTATIVE VACANCY

Also, we received copies of your letter regarding your notification to the administration on the appointment of a representative for the 902 covenant consultations. We have been waiting for a response, but to date we have not been given any response as to who is the administration's representative.

We feel, Mr. Chairman, that the absence of a representative is delaying and frustrating our effort to try and understand our fundamental political relationship with the Federal Government. There are many outstanding issues that are only able to be resolved though this process. We hesitate to go to court every time there is a problem because the Federal Government does not want us to discuss it on the table. We appreciate your effort to encourage the administration to appoint a permanent representative so that we can begin the process of consultation as provided in the covenant.

### SAIPAN HARBOR

With respect to the items in the budget, Mr. Chairman, as I indicated, the harbor is one of our very important priorities. We are requesting under the harbor project the appropriation of $14 million, which is to be utilized for the dredging of the turning basin in the entrance channel to the harbor in Saipan.

This project is slated to be started by our government late this year. We have allocated about $13 million for phase 1 and phase 2 construction.

We are also requesting in our detailed testimony additional funds at a later date for expansion purposes. If we are able to obtain the $14 million through the previous authorization, which is to be administered, I believe, by the Corps of Engineers, by having that fund available we could simultaneously undertake both onshore and offshore projects and thereby hopefully would decrease the amount of construction costs for the total project.

Mr. Chairman, that completes our brief statement for this afternoon. I would be happy to answer any questions from the committee. Thank you.

### COVENANT SPECIAL REPRESENTATIVE VACANCY

Senator JOHNSTON. Governor, Senator McClure and I wrote both Secretary Hodel and Attorney General Meese to resolve the citizenship and 902 negotiator vacancy issues and have not yet received a reply. We hope to get a reply soon.

### SAIPAN HARBOR

The offshore component of the harbor project is estimated to cost $21 million with $14 million being the Federal contribution. What is the current cost estimate for the onshore facilities, and will that project be done in phases?

Lieutenant Governor TENORIO. The total cost for the onshore facilities is approximately $28 million, as estimated by the Corps of Engineers. Phases 1 and 2 would account for about $12.5 million, which basically completely completes the usable part of the harbor and the dock phase, the surface and the storage area, the part to be reclaimed.

The additional amount is to be used for the purchase of necessary onshore loading and offloading equipment together with an expansion program. The $14 million that is to be allocated by the Federal agency would help in making the harbor more usable for larger type vessels coming to our islands. The $14 million is to be used for the dredging of the entrance channel and the turning basin, which was recommended by the design engineers as part of the total project.

Senator JOHNSTON. Thank you.

Senator McClure.

Senator MCCLURE. I have no questions. Thank you very much.

Senator JOHNSTON. Thank you very much, Governor. It is always a pleasure to have you here.

Lieutenant Governor TENORIO. Thank you, sir.

## FEDERATED STATES OF MICRONESIA

## STATEMENT OF JESSE MAREHALAU, RESIDENT REPRESENTATIVE

ACCOMPANIED BY:
DEL PANGELINAN, BUDGET OFFICER
JAMES STOVALL, WASHINGTON COUNSEL

### INTRODUCTION OF ASSOCIATES

Senator JOHNSTON. Next, from the Federated States of Micronesia, it is a pleasure to welcome Jesse Marehalau, Resident Representative.

Mr. MAREHALAU. Thank you, Mr. Chairman.

Mr. Chairman and members of the subcommittee, my name is Jesse Marehalau, the Government of the Federated State of Micronesia Representative to the United States.

With me today, on my right, is Mr. James Stovall, our Washington counsel, and to the left, Mr. Del Pangelinan, the FSM budget officer.

Our testimony includes a number of appropriation requests for the consideration of the committee. This includes the College of Micronesia campus, war claims, indefinite land use payment, capital improvement program deficiencies, outstanding medical referral obligations, and technical assistance.

### COLLEGE OF MICRONESIA

The matter of the College of Micronesia has been a long-standing issue with which you are quite familiar. The construction of a new community college campus is an absolute necessity. The present facility consists of old, rundown buildings that are inadequate for the number of students that wish to enter the college.

We earnestly request and seek your committee's favorable consideration of this important need of the emerging nations of the FAS. The investment of Congress will make an improvement of our community college, will enhance our country's development efforts, and make our economic programs more of a reality. We hope you will agree with us by appropriating the $12 million request.

### WAR CLAIMS/INDEFINITE LAND USE PAYMENTS

War claims and indefinite land use payments are issues that have long dominated past hearings of this committee. The compact and other laws provide authorization for such settlement of these outstanding obligations. On behalf of the claimants, we ask for your understanding and support for an early settlement of these accounts.

### OUTSTANDING MEDICAL REFERRAL PAYMENTS

Public Law 99-239 further authorized the payment of all outstanding medical referral expenses incurred prior to September 1, 1985. The administration has yet to seek the required funding.

Your committee, by letter dated June 17, 1987, also directed the Office of Territorial and International Affairs to review the ongoing capital improvement program before its termination, to identify and report to Congress the deficiencies that need to be corrected.

The outstanding medical referral accounts as well as the report on the CIP deficiencies have been provided the administration. We certainly hope that the administration and Congress will agree on the funding to quickly settle these matters.

### PREPARED STATEMENT

Last, we request that the technical assistance funding be increased to its current level of $5 million. The technical assistance program has been a welcome source of funding for our many technical assistance needs which are not possible to meet under our very limited operational accounts.

Thank you, Mr. Chairman.

[The statement follows:]

## STATEMENT OF JESSE B. MAREHALAU

Mr. Chairman, I want to thank the Committee for again allowing us to appear to discuss the requests of the Federated States of Micronesia that are not included in the President's budget. We have always been pleased with the reception we have had with this committee, and we are honored to be here again.

### Transition Issues

The FSM's first priority is to address the concerns we call "transition issues". These are issues that relate to our former relationship to the United States under the Trusteeship and have been raised time and time again over the years. Among these issues are the physical condition of the Community College of Micronesia, remaining War Claims, the deficiencies of the Five-Year Capital Improvement Program and indefinite land use payments.

### College of Micronesia Construction

Well over a decade ago, the U.S. Congress enacted legislation authorizing an appropriation of $8 million for the construction of a new campus on Pohnpei, FSM, for the Community College of Micronesia. The implementation agreement regarding the Compact of Free Association signed between our governments also pledged to seek this funding. Although the architectural and engineering work for the new campus was completed several years ago, no appropriation has been made. Our immediate concern is the fact that, since the U.S. Congress first enacted the authorizing legislation, the estimated cost of the planned construction has risen to over $12 million.

This is quite an increase. Had the funds been available, we could have coordinated the construction of the campus with that of our capital and realized considerable savings. The increase in construction costs, however, does not begin to approximate the total cost of delaying this project. There are opportunity costs that should be recognized, the most significant of which is the cost borne by our students every year they are deprived of a better educational facility. Many students could already have benefitted from the expanded capacity and improved equipment of a new facility. Instead, the increased demand for education has added overcrowding to the litany of problems that the College must solve. At the same time, the present facilities grow older and more run-down. We believe that the present deteriorated condition of the College is negatively influencing the attitudes of our young people about the value of a college education. No one can put a price tag on this kind of loss, but anyone should be able to recognize its importance.

It disturbs the FAS Governments that the College has no alternative but to turn away qualified applicants when our countries are in dire need of its trained graduates. We have raised the issue of the Community College, Nursing School, and Micronesian Occupational College campuses many times in the past. Once again, we urgently request this Committee to repond to this oft-stated commitment.

### War Claims

The issue of final settlement of outstanding Micronesian War Claims has been raised annually for many years. The FSM Government is grateful that a partial payment, $12.35 million, was appropriated and will be disbursed in the coming months. I am hopeful that the Congress will at last settle this matter by including the remaining balance in this year's budget. This is a matter of significant importance to the FSM, and it makes good sense to make the final settlement while the Department of Interior is mobilized to do so.

## Indefinite Land Use Agreement

We have been urging for many years that the Administration support an appropriation for $2.78 million to settle the longstanding issue of compensation for indefinite land use. We are pleased to see that the full amount is requested by the President. We strongly recommend that the Congress appropriate the full $2.78 million requested in this year's budget.

## Five-Year Capital Improvement Program Deficiencies

It is apparent that the effort to stimulate economic growth through private sector investment and other programs will be wasted unless an adequate physical infrastructure is in place to support the activities. In the mid-1970's, the Department of Interior began a five-year Capital Improvement program in the Trust Territory to provide basic infrastructure. A decade later, the program has yet to accomplish its directive; while many of the projects are completed, others are still under construction or design. Worse, some of the completed projects have been shown to have deficiencies that threaten their integrity and useful life.

In June of last year, the Senate instructed the Office of Territorial and International Affairs to arrange for a final assessment of the Capital Improvement Program for the purposes of identifying the deficiencies that need correction. The results of that study are now in final draft form. While the FSM has not yet completed its review of the study, we are in concurrence with the recommendation that at least $10,243,000 be appropriated to correct the deficiencies detailed by the report.

Mr. Chairman, one of the repeated themes of the deficiency study is the failure to adequately maintain capital projects. Part of the problem may be ascribed to the difficulty in maintaining high technology systems that require maintenance standards beyond the capacity and technical resources of the islands. Additionally, the report notes that general maintenance programs have not been put into effect by the governments. The basic reason for this is the difficulty in identifying sufficient financial resources for an ongoing maintenance effort. For these reasons, we request the reinstatement of an earmarked maintenance grant to assure the proper maintenance of electrical, water and sewer utilities and to provide training and a supply of necessary spare parts. We are concerned that the now identified problems brought about by poor maintenance may be exacerbated in the next few years if such a program is not put into place.

Medical Referral

Section 105(d)(1) of Public Law 99-239 places upon the Administration the responsibility of paying the outstanding medical fees of the FAS existing before September 1, 1985. By direction of Congress, the Administration was asked to review and report to Congress the amount needed to retire the outstanding obligations. The FSM, based upon claims submitted by the various medical facilities in the U.S. and Guam, has submitted a claim to the Administration totalling more than three million dollars. We have noted, however, that the Administration did not request any funding for this in the budget. We therefore ask that an amount sufficient to retire these obligations be included in the FY 1989 appropriations.

Technical Assistance

The Administration's request of $2.2 million for OTIA administered technical assistance is insufficient for the needs of the U.S. territories and Freely Associated States. We believe that maintaining the current $5 million level will allow OTIA to meet the pressing need for assistance of all the insular areas.

Annual Report

I realize that this Committee has an interest in the annual report on the use of development monies required by Section 211 of the Compact. I regret to inform you that because of an unanticipated delay in acquiring funds for an independent audit of FSM financial records, we shall be unable to submit the report until a later date. We have already completed our narrative review of our development efforts, but because a comprehensive financial report is an essential component of our annual report, the President will delay submission until the audit is completed. I do not anticipate that this delay will occur in future years.

Thank you for the opportunity to speak today. I shall be happy to answer any questions you may have.

## COLLEGE OF MICRONESIA

Senator JOHNSTON. Thank you very much, Mr. Marehalau.

With respect to the college, how many students would come if you had a newly constructed college.

Mr. PANGELINAN. Mr. Chairman, my name is Del Pangelinan, budget officer of the FSM.

Presently, the current enrollment totals about 1,000-plus students. That includes the community college in Pohnpei, the occupational college in Palau, as well as the nursing school in the Marshalls, and the extension programs that we have in the islands.

Senator JOHNSTON. How many students does the occupational college have?

Mr. PANGELINAN. There are roughly 370 to 380 students at the Micronesia occupational college; over 200 in the community college of Micronesia, in Pohnpei.

Senator JOHNSTON. How many years is the curriculum at that community college?

Mr. Pangelinan. It's a 2-year program, Mr. Chairman.

And there are over 500 students scattered in the islands who are participating in the extension program that the college conducts.

Senator Johnston. It is the rebuilding of the community college that you desire?

Mr. Pangelinan. Yes, sir; the request that we have here before you is to construct a new campus in Pohnpei. However, there is also a need for the construction of a nursing school in the Marshalls where the nursing school is presently located, as well as renovation and upgrading of the MOC, Micronesia Occupational College, in Palau.

Senator Johnston. That can be awfully difficult to do considering our fiscal situation at this time. We are going to have to make do with less money than we had last year in real dollars, so it is going to be very difficult to do any of these things.

## FSM ASSESSMENT OF COMPACT

It has been a year and a half since implementation of the compact and it may be a bit premature to be drawing too many conclusions. However, in general, what is the view of the FSM? How does the compact compare to the trusteeship?

Mr. Pangelinan. Mr. Chairman, the funding providing under the compact is certainly an improvement over previous years. We do have knowledge of how much money is coming to us and we are able to plan for the use of those funds. We cannot report to you now on how well we did in the first year of the compact. Not much activity has taken place in 1987 because of the late arrival of the compact funds.

The State governments have already appropriated the money dedicated for our CIP programs as well as development programs, and those programs are presently being implemented. Hopefully, in our next annual report to the Congress we will have better reporting on the results and how we use those funds during this year.

Senator Johnston. Thank you.

Let me say that for all of the territories and the FAS we will have some questions for the record.

Senator McClure.

## FSM CIP PROJECT REPORT

Senator McClure. I want to refer to page 4 of your statement. On the bottom of page 4 you first outline some problems with the capital improvement program, primarily in terms of some of the completed projects that have been shown to have deficiencies, and then you make reference to the fact that the Senate instructed the Office of Territorial and International Affairs to arrange for a final assessment of the capital improvement projects. And you also indicate that that study is in final draft form but not yet ready for delivery. Is that correct?

Mr. Pangelinan. That is correct, Mr. Chairman. The draft report has been done. However, we understand that the final report is being held up, waiting for the responses from the different governments.

Senator McCLURE. In your view, does this report fully and correctly look at the question of the deficiencies and completed projects?

Mr. PANGELINAN. Mr. Chairman, the report was completed recently and our people are reviewing it back home. I hope that those concerns will be raised.

Senator McCLURE. You hope you will be able to say yes but you can't say yet. Is that right?

Mr. PANGELINAN. I cannot say that.

Senator McCLURE. Would you inform us when you have had a chance to review that as to whether or not this does adequately address those questions?

Mr. PANGELINAN. Will do, sir.

### ANNUAL REPORT ON USED COMPACT DEVELOPMENT MONEY

Senator McCLURE. On the last page of the statement you are referring to the annual report on the use of development moneys, and it is indicated that because of an unanticipated delay in acquiring the funds for the audit that will not be submitted until a later date. How much later? When can we expect that report?

Mr. PANGELINAN. Mr. Chairman, we received the authorization for the funding for the audit just last month. I understand that our public auditor office has already started the audit, and hopefully in the next few months we will have a final report ready for submission to the Congress.

Senator McCLURE. The next few months is kind of a broad one. Can you be a little bit more specific as to when we might expect that report? How long do you expect the auditors to have to work before they can submit it to you?

Mr. PANGELINAN. I cannot tell you exactly, sir, at the moment. I can check it out and can report it to Congress.

Senator McCLURE. If you would, please.

Thank you very much, Mr. Chairman.

### ADDITIONAL COMMITTEE QUESTIONS

Senator JOHNSTON. Thank you, Senator McClure.

Thank you very much, gentlemen. We appreciate your testimony. It is always a pleasure to have you here.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

Question: Please provide the Committee with a summary of how FY 1987, FY 1988 and FY 1989 Compact capital account funds have been, or are planned to be expended. Also include a summary of infrastructure operation and maintenance funding for these same periods.

Answer: In FY 1987, a total of $29,280,000 was earmarked for capital improvement and development projects in the FSM. By the end of the fiscal year, more than $25,000,000 was appropriated to fund more then 90 projects ranging from infrastructure development (road, water, sewer and power) to various development programs including fisheries and agriculture extension and development, and tourism, among others. Our annual report will provide the detail of each of these projects.

In FY 1988, $29,760,000 was allocated to capital account purposes. To date, more than $17,600,000 has been appropriated. Pohnpei State is presently reviewing its capital account budget and is expected to enact an appropriation bill within a month which will greatly reduce the unappropriated balance of the FY 1989 capital account funding.

At this writing, it is difficult to forecast how the states are going to expend their FY 1989 capital account funds. The FY 1989 budget process will not be completed until the summer.

It is quite certain, however, that the state budgets are in line with their development plans. It is also well to note that a good amount of the capital account funds is being expended to improve or extend projects which were initially started by the Trust Territory Administration, but failed to adequately serve the needs of the people. These projects initially include roads, water and sewer facilities that are urgently needed to be expanded to serve communities adjacent to the areas presently receiving services.

As we indicated in our testimony, maintenance of existing and planned facilities poses a major concern to the governments of the Federated States of Micronesia. Inadequate operational funds dating back many years caused deterioration of facilities even under the Trust Territory Administration. Studies conducted by the Trust Territory and the Department of Interior on facilities maintenance resulted in the appropriation of a Special Enhanced Operations and Maintenance fund to help remedy the deficient maintenance effort. The O&M program was very successful and has been responsible for maintaining in operating condition many of our power systems and water and sewage facilities. With the termination of the O&M funding and our limited operational funding, we can quite accurately predict that existing infrastructure will suffer major deterioration in the future. Should this happen, the large investment in infrastructure to date will slowly disintegrate before our eyes.

Question: Several of the docks built in the FAS under the Trust Territory CIP program have been damaged by ships. What payments, if any, have your governments recovered from ship operators or their insurance companies for repair of such damage? Also, do you have specific plans to increase collections for such damage?

Answer: During the recent deficiency study trip to the states, there was no evidence of major damage to the FSM docks by ships calling at the ports. Rubber or wood energy absorbers (fenders) that are attached to the docks to keep the ships from bumping into the concrete dock have deteriorated, but nevertheless they are still fully effective except in Truk, where rubbers fenders have not been installed. Rubber fenders tend to deteriorate over a period of time due to repeated use and the deterioration cannot be attributed to a single ship or incident. An incident recently took place at Pohnpei dock where a Mobil tanker did some damage to the concrete dock face. The repair work on the damage was paid for by the Mobil's insurance company.

As to the future damage to the FSM docks by ships, it is the position of the government to recover the cost of repairing such damage by having the responsible operators pay for it.

Question: When do you expect to have your financial audit completed?

Answer: The tentative date for completion of the FY 1987 Single Audit is August 8, 1988. The FSM Government should be able to transmit the annual report and its audited financial report to the U.S. Congress by September 30, 1988.

Question: Is the FSM satisfied with the report on CIP deficiencies? Are the funds recommended to correct the deficiencies adequate? Are there other projects not covered by this report?

Answer: The draft report, as presented, appears to adequately address these deficiencies. The amount of funds recommended to correct these deficiencies is, in our opinion, sufficient to do the job.

All the projects contained in the report were reviewed by the FSM States and, with the exception of some minor issues, the states were in agreement with the findings of the reviewing team.

## REPUBLIC OF THE MARSHALL ISLANDS

## STATEMENT OF OSCAR DE BRUM, CHIEF SECRETARY

**ACCOMPANIED BY:**
**WILFRED KENDALL, REPRESENTATIVE**
**ALAN FOWLER, SECRETARY OF FINANCE**
**PETER OLIVER, SPECIAL ASSISTANT**
**JOACHIM SOUMEI, BUDGET OFFICER**

### INTRODUCTION OF RMI OFFICIALS

Senator JOHNSTON. Next we are glad to welcome from the Republic of the Marshall Islands Oscar de Brum, who is Chief Secretary.

Mr. Secretary, we understand your granddaughter is going to be one of the first participants in the Close Up Program here in the next couple of weeks. We are very proud of that. Not only because she is your granddaughter, but because we are very pleased that that program is coming to the Marshalls. I know she will have a good time and will profit a great deal by that.

Mr. DE BRUM. Thank you, sir. We are equally grateful and enthusiastic about the program. We will be addressing some of that in our statements.

Senator JOHNSTON. Please proceed.

Mr. DE BRUM. Thank you, Mr. Chairman.

First of all, on behalf of the His Excellency, President Kabua, and the people of the Marshall Islands, I want to thank you for the opportunity to appear before this committee once again on behalf of the Republic of the Marshall Islands Government.

I have with me the representative of our Washington office, Hon. Wilfred Kendall, and to my right, the secretary of finance from Majuro, Mr. Alan Fowler; and to his right, the budget officer, Joachim Soumei, also from Majuro. In my background is Pete Oliver, the compact implementation special assistant. Also with us in this audience are our distinguished representatives and senators from the radiologically affected Island of Enewetak, and also the representative from Rongelap.

### PREPARED STATEMENTS

They had statements to offer, Mr. Chairman. I realize the time constraint we have. With your permission, I ask that they be included as part of our statement to you, sir.

Senator JOHNSTON. Without objection, those will be included.

[The statements follow:]

## STATEMENT OF OSCAR DE BRUM

On behalf of President Amata Kabua and the people of the Republic of the Marshall Islands, I wish to thank you for the opportunity to submit testimony on the Fiscal Year 1989 federal budget as it relates to the Republic of the Marshall Islands.

In this statement, I shall summarize the current state of affairs in the relationship between the United States and the Republic of the Marshall Islands. I will affirm the unqualified support of my nation for the relationship of free association and I will address certain aspects of the relationship that require strengthening.

Before commenting on the Fiscal Year 1989 budget as it relates to the Marshall Islands, I must express the sincere gratitude of my nation to the United States Government, and particularly the United States Congress, for the support it has given to my new nation. We appreciate the commitment of the Congress to seeing that the new relationship succeeds and flourishes. Throughout the first year-and-a-half of this relationship, the Congress has responded with compassion and understanding to the transitional difficulties that have arisen. For the current fiscal year, in addition to the permanent indefinite appropriation and program grant assistance assured by the Compact, Congress has approved funding for partial payment of Micronesian War Claims, retirement of previous debt of the TTPI, the OTIA program of technical assistance to the flag territories and the freely associated states, inventories of the national resources of our shorelines and our natural and historic landmarks, completion of the dock at Jaluit (an administrative center in the southern portion of our nation), participation of Micronesian students in the programs of the Close Up Foundation, and a measure of relief to the people of the islands in the northern part of our nation who were affected by the United States Nuclear Testing Program. For your generosity in all of these matters, you have our deep gratitude.

### Report on Development

The past twelve months have seen a reaffirmation of the democratic principles that underlie the national and local governments of my nation. In the quadrennial nationwide election that took place on November 16, 1987, the office holders of all thirty-three seats of the Nitijela, the parliament of the Marshall Islands, were determined by the electorates of the twenty-four districts representing the inhabited islands and atolls of my nation. When the Nitijela convened in the first week of January this year, the Honorable Kessai Note was elected to serve as Speaker of that body and His Excellency Amata Kabua was chosen to serve an additional term as President of the Republic. In his statement of acceptance, President Kabua rededicated the efforts of his administration to the tenets of the Compact of Free Association as spelled out in the Preamble of that treaty and pledged the full support of his office to achieving the economic advancement and self-sufficiency of the people of the Marshall Islands.

In 1987, elections were also held for many of the local government councils, including the local government of Kwajalein Atoll, one of the two major urban centers of the Republic. It continues to be a policy of my nation to promote effective local government; in a nation where communities are separated by hundreds of miles of the Pacific Ocean, we recognize that local administration of such public services as the schools, dispensaries, and utilities is the most responsive means of meeting the needs of a community.

The Republic of the Marshall Islands remains fully committed to the special relationship between our two nations that is defined by the Compact of Free Association. I have attached to this statement a copy of testimony submitted last November to the House Subcommittee on Insular and International Affairs, summarizing the principal activities of my government during the first year of the Compact partnership. You will note that there is a great scope to the activities of the Government of the Marshall Islands. I feel that our ability to sustain such a diversity of government services is remarkable in a nation of forty thousand people. Many of the present activities of government have long been public service responsibilities that were established in the period of the Trust Territory administration. Surely, the continuity of public services has been a primary accomplishment of the first year of the Compact relationship. Most activities of the government have continued without interruption in the past year.

In addition, the reports from the various ministries and other government agencies point out that my government assumed a number of new responsibilities as the Compact has come into effect, especially in the management of federal grant programs. My government has also begun to administer many special provisions of the Compact--in particular, special support to the people of the Marshall Islands who were affected by the U.S. Nuclear Testing Program. Our progress in all of these areas is summarized in the attached report.

The attached report highlights a number of other developmental projects that have been completed or are nearing completion. Chief among these are construction of a sewer system in Majuro, the expanded production of drinking water in Majuro, a number of new school buildings, a new public radio broadcasting facility, the purchase and utilization of a surveillance vessel pursuant to Section 216(b) of the Compact, and institution of a national development bank utilizing the capital made available from the Marshall Islands Investment Development Fund pursuant to Section 111(b) of P.L. 99-239.

Two months ago, this Committee was presented with the first annual report concerning all actions of the Fund Manager regarding the Nuclear Claims Fund established by Section 177 of the Compact of Free Association. (The annual report is required by Section 103(e)(5) of P.L. 99-239.) Despite the calamitous reduction in the corpus of the Fund that occurred in the October 1987 crash of the U.S. equity market, my government has been able to make the first five quarterly disbursements to the beneficiary communities. In addition, the other responsibilities assumed by my government under Section 177 of the Compact are being implemented successfully: we have established an effective alternative health program to replace the short-lived Four Atoll Health Care Program; the Nitijela has established the Claims Tribunal to resolve remaining claims and disputes relating to the U.S. Nuclear Testing Program, the officiating officers for this judicial body have been selected and the Tribunal will be fully functioning this spring; and the final report on the scientific work of the Rongelap Reassessment Project, required by Section 103(i) of P.L. 99-239 and financed from the proceeds of the Nuclear Claims Fund, is being submitted to the President of the United States and the Congress by the Project Director, Dr. Henry I. Kohn, during the current round of appropriations hearings.

In compliance with Section 103(b) of P.L. 99-239, the Government of the Marshall Islands has submitted to the U.S. Government a revised version of the first Five-Year Development Plan, including a rephasing of activities for Program Years 1987 through 1991 and a prioritization of developmental projects. In compliance with Section 211 of P.L. 99-239, my government is preparing its first annual report to the President and Congress on the economic activities, progress, and condition of the nation; the report will describe the efforts of my government to implement the national development plan during Fiscal Year 1987.

## Financial Status

To achieve the fiscal stability needed for the development of my small nation, the Government of the Marshall Islands strictly adheres to a policy of fiscal responsibility. Throughout the past year, my government has continued efforts to improve its financial management capabilities and systems. Legislation is being drafted that will establish a comprehensive financial management legal regime and enact formal procurement procedures for the Government. The Government of the Marshall Islands, in compliance with its constitution, retains a vigorous and independent Auditor-General to ensure compliance with acceptable U.S. Government accounting procedures.

I am also pleased to report on the sound financial status of the Government of the Marshall Islands. The financial management of government services is carefully regulated, in a manner appropriate for a small developing nation. Fiscal Year 1987 was the fourth consecutive year in which my government has avoided an operational deficit.

In the past year, my government was at last able to retire the cumulative deficit due to long-term debt previously incurred for such key developmental projects as the Majuro power plant and the national airline. With the receipt of Compact funds and the guarantee of future funding under the Compact, the Government of the Marshall Islands was able to successfully complete a private placement bond issue through E. F. Hutton and Company, Inc., which had the effect of retiring all of the government's long-term debts.

The fiscal responsibility of my government has given the Marshall Islands a secure financial footing for economic development and for implementation of policies of privatizing and decentralizing government services and generally encouraging growth of the private sector. As we emerge from a forty-year period during which the local economy was dominated by government activity, an economic goal of my government is to evolve towards a situation of competitive free enterprise. We shall utilize certain of the developmental programs available under the Compact to facilitate growth of the private economic sector. I will further note that the operation of the Majuro power plant has been successfully managed by a private organization for several years, while private contractors are now providing management services in the areas of public works, administration of health services, and management of capital improvement projects. Further privatization of government services is being actively pursued. The expansion of our private sector is notable and is being further encouraged by several of the developmental programs made available under the Compact.

I have previously touched upon the expanded responsibilities of the local government councils. Special recognition should be accorded to the central role that has been played by the local leadership at Kwajalein in relief efforts in the wake of Tropical Storm Roy which devastated Ebeye Island in early January.

To assist my government in assuming management responsibility for federal grant programs, I have previously requested that certain of the Interior-funded personnel that will be assigned to the Freely Associated States should be recruited with a view towards providing expertise in both the administration and financial management of specific federal programs. Representative Wilfred I. Kendall and I have testified to several committees of Congress that it would be most helpful if the Department of the Interior were to recruit people familiar with the programs and services of particular agencies so that they could directly assist the Government of the Marshall Islands and members of the public in determining the extent of programs available, providing advice on project applications and implementation of the programs, and generally ensuring compliance with program regulations in order to avoid questioned costs. An appropriate qualification for these positions might include several years of experience with state or local governments in the administration of such programs. This use of OTIA positions might be leveraged with OTIA technical assistance funding so that persons knowledgeable in a number of federal agencies would be able to work in the Marshall Islands for shorter periods of time, possibly moving on to serve similar support roles elsewhere in Micronesia. Among the federal agencies in which expertise would be helpful to my government in the early years of the Compact relationship are the elementary and secondary programs of the Department of Education, the Economic Development Administration, the Public Health Service, Farmers Home Administration, the Small Business Administration, and the Environmental Protection Agency. Of the several federal agencies authorized to extend programs to the government and citizens of the Marshall Islands under the Compact, the Farmers Home Administration has been noticeably reluctant to establish a presence in my nation and, in order to open the programs of this agency to our businesses, local governments, and individuals, I request that this Committee require the Farmers Home Administration to assign an official of its agency to the Marshall Islands on a full-time basis.

## Recommended Legislation

My government sees the need for legislative action on several issues relating to the Compact of Free Association. These requests have arisen from the experience of the United States and the Republic of the Marshall Islands during the first year-and-a-half of the Compact relationship. Certain difficulties had not been anticipated; most of the solutions we propose are temporary and transitional in nature and will allow the governments of the Freely Associated States to develop their own capabilities for certain public services previously provided by TTPI or other U.S. federal agencies.

We would ask that Section 103(h) of P.L. 99-239 be amended to expand the health care support and food services support to the communities of Rongelap and Utrik Atolls which were exposed to radioactive fallout resulting from the 1954 Bravo nuclear explosion. Subsection 103(h)(1) of the law assures the Marshall Islands that the U.S. Department of Energy Radiological Health Care Program will continue to provide special medical care and logistical support to the people of Rongelap and Utrik for the next ten-and-a-half years. My government has been informed that the Brookhaven whole-body counting program is now being disbanded. We urge the U.S. Government to make every effort to continue this crucial medical support to the fallout victims and to the communities intending to return to islands previously off-limits.

We would also request that the radiological monitoring and scientific work begun by the Bikini Atoll Rehabilitation Committee (BARC) be continued by the U.S. Department of Energy, since the long-range impact of the technologies that have been developed by BARC to limit the uptake of radioactivity into the terrestrial food chain have yet to be assessed. The long-term efficacy of these technologies will be vitally important to the communities affected by the U.S. Nuclear Testing Program as they plan the resettlement of Bikini and Rongelap Atolls and the northern portion of Enewetak Atoll. The implementation of a program of radiological safety that includes whole body counting and dose assessments is imperative for the safety of individuals who choose to return to islands previously considered too dangerous for habitation. We recommend authorization of an appropriation for the U.S. Department of Energy to undertake radiological safety plans and scientific work at Bikini, Enewetak, and Rongelap during the next five years, through Fiscal Year 1993.

The other concern of my government regarding support to the communities of Rongelap and Utrik is that, perhaps inadvertently, they were not included in the Agricultural and Food Programs for the radiologically-affected communities established by Section 103(h)(2) of P.L. 99-239. The law provides a continuation of USDA food assistance to the people of Bikini and Enewetak for a five-year period, through Fiscal Year 1992, at the same levels that these communities had received before the Compact came into effect. Food support to the people of Rongelap and Utrik is currently being reduced in accordance with the schedule for reduction of most federal grant assistance to the Freely Associated States contained in Section 104(c) of P.L. 99-658: for the current year, they are receiving only half as much food support as they received before the Compact came into effect; next year, they are scheduled to receive only one-fourth of previous levels; and, by Fiscal Year 1990, they will no longer be eligible for any support from USDA programs. This reduction has posed a special hardship on the people of Rongelap who are now exiled on Mejetto Island in the far northwest quadrant of Kwajalein Atoll, where the food crops and other vegetation are sparse. We have asked the Congress to amend this section of the Compact Act to restore previous levels of food support to the people of Rongelap and Utrik.

My government is deeply grateful to the Congress for efforts to reinstate the eligibility of students from the Freely Associated States for the Pell Grant Program, the Supplemental Educational Opportunity Grant Program, and the College Work-Study Program. I wish to note that the annual Scholarship Fund made available to the Marshall Islands under Section 216(a)(3) of the Compact has been used to support the College of Micronesia, as well as to provide financial assistance to young Marshallese college students and upgrade the professional skills of teachers and other civil servants. It is clear that, within a year or two, unless eligibility is restored for citizens of the Freely Associated States to receive U.S. federal post-secondary financial assistance, the Scholarship Fund will not be sufficient to cover all of these essential educational needs. It should be further noted that the withholding of federal educational assistance to students from the Freely Associated States has has had the effect of reducing enrollments (and, therefore, federal financial support) to the post-secondary institutions of Hawaii and Guam.

To further upgrade the knowledge and skills of teachers in the Marshall Islands, my government urges the Congress to re-authorize the Territorial Teacher Training Assistance Program (TTTAP) originally authorized in P.L. 95-561. TTTAP has provided direct grants to my government ($220,000 in Fiscal Year 1987, which is the current program year) for the training of teachers in public and private schools. In the past, TTTAP has sponsored training programs that have enabled eighteen teachers each year to take a sabbatical to attend full-time programs at the Majuro

Continuing Education Center; provided full-time instructors from the University of Hawaii to teach English Language Institute courses to teachers in Majuro; contracted instructors from the University of Hawaii and the University of Guam to teach college credit courses to teachers and the general public in Majuro during the summer vacations; and funded the participation of secondary vocational education teachers in specialized training programs at various locations in Micronesia. As a result of the teacher training programs funded by TTTAP and other federal education programs over the past decade, more than two-thirds of the teachers in the public school system now meet RMI national certification standards (an AA or AS degree) and many Marshallese teachers are approaching completion of requirements for a bachelor's degree. Not only has TTTAP been highly effective, but it has also been an economical, carefully targeted program, with no funds going into local salaries or administrative overhead. Without the periodic upgrading of academic knowledge and teaching skills made possible by TTTAP, the educational capability of my government may well deteriorate over the next few years.

We would also request authorization of an annual appropriation to enable Marshallese high school students to participate in the activities of the Close Up Foundation. This year, for the first time, the program has been extended to students in the Freely Associated States on a trial basis. Last month, Close Up sponsored the participation of three students and a teacher from the Marshall Islands in a conference in San Francisco on the subject of the "Pacific Rim Trade" and, next month, twenty-four Marshallese students and six teachers will participate in the citizenship education programs of Close Up International in Washington, D.C., colonial Williamsburg, and New York City. We feel that the program will greatly contribute to the training in civic responsibility of the students of our young nation and will strengthen the ties between our nations. We ask that the Close Up program be made available to the students and teachers of the Freely Associated States during Fiscal Year 1989 and in the years ahead.

The education of Marshallese students could also be negatively impacted by the possible cutoff of technical assistance from the U.S. Department of Education. Sources close to the USED have alerted officials of the Marshall Islands Education Department about the possibility that the Freely Associated States may be declared ineligible to receive technical assistance services provided by third party institutions and educational laboratories under contract to USED. Seven educational organizations are presently providing my government with such services, which consist mainly of teacher training workshops, curriculum development assistance, professional capacity building of local staff, and sponsorship of regional conferences and meetings. These activities are important for upgrading professional staff skills, for providing opportunities for the sharing of information among educational institutions in the region, and for keeping staff up-to-date with the latest developments in educational research. Although the provision of such technical assistance is clearly authorized by Section 226, we have recently learned that our nation may not be eligible for the indirect technical assistance of the Leadership in Educational Administration Development (LEAD) program. We are worried that, without access to such professional assistance, the educators of the Freely Associated States will become isolated from their colleagues in the region. To ensure a continuation of this assistance, we request that Section 105(1) of P.L. 99-239 be amended to to include the USED as one of the federal agencies authorized to provide technical assistance to the Freely Associated States to the extent that such assistance may be provided to States, territories, or units of local government.

My government is currently requesting technical assistance from OTIA to conduct a major study of the educational system in the Marshall Islands. For several years, the leadership of the Marshall Islands has recognized the need to employ one or more education experts to carefully study the educational needs and available funding resources in the nation and to make specific recommendations concerning structural changes, lines of authority and public accountability, appropriate programs, and educational priorities. My government requests this Committee to endorse our application for technical assistance to restructure the educational system of the Marshall Islands.

We would also ask that Section 105(l) be amended so as to make the Freely Associated States eligible for technical assistance from the U.S. Environmental Protection Agency. When testifying before the House Subcommittee on Insular and International Affairs last fall, Representative Kendall reaffirmed the commitment of our government to developing an effective program for environmental protection and requested that certain of the services of the USEPA be extended to the Freely Associated States for a period longer than the three-year phasedown mandated by Section 104(c) of P.L. 99-658. After Fiscal Year 1989, we intend that all regular operating expenses of the Marshall Islands Environmental Protection Authority will be borne by our government and we would hope that financial assistance from the USEPA would be available to contract consultants for specialized technical assistance and staff training. We have further requested that the USEPA be authorized to act in an advisory capacity to develop the capabilities of the Marshall Islands Environmental Protection Authority.

A third agency we have asked to be included under the technical assistance authorized by Section 105(l) of P.L. 99-239 is the U.S. Geological Survey. The assistance of this agency could be helpful in (1)advising government officials about shoreline erosion, a problem plaguing the more populous islands, and (2)evaluating the seabed mineral resources of the Marshall Islands. In 1984, a U.S. Geological Survey vessel spent a few days in the waters of the Marshall Islands and took samples of the cobalt crusts. We would like this work to be done on a more formal basis, with systematic mapping and sampling, so that we can fully evaluate the mineral resource potential of our nation and be in a position to have on hand sufficient data to attract industry and develop an adequate regulatory regime. The need for protecting the shorelines of Majuro and Ebeye was underscored by the devastating water damage caused by Tropical Storm Roy at Ebeye at the beginning of the year.

## Fiscal Year 1989 Budget

Due to the late submission by the Administration of its budget for Fiscal Year 1989, my government has been able to give only a cursory review the proposals contained therein. Nonetheless, it appears that the Administration has requested the levels of permanent indefinite appropriations and program grant assistance that are assured to the Marshall Islands by the Compact of Free Association. My government is counting on this assistance to cover a significant portion of its operational and developmental expenses next year. The schedule of economic assistance assured by the Compact provides a secure financial foundation for my young nation; with the foreknowledge of the fifteen-year commitment of the Compact, our leaders have been able to plan and budget the provision of government services and the economic development of the nation with the confidence that specified levels of financial aid will be provided by the United States.

Mr. Chairman, we support the Administration's request.

Aside from a provision for the Indefinite Land Use Payments authorized by Section 105(n) of P.L. 99-239, the Administration has not requested funding for certain of the unfinished work of the Trust Territory and certain of the programs assured by the Compact legislation. My government requests that funding for these projects be added to the Fiscal Year 1989 budget. These additional requests include:

(1)Technical Assistance, $5.2 million;

(2)War Claims, $11.8 million;

(3)Department of Energy Radiological Health Care Program for Rongelap and Utrik, $2.45 million;

(4)Department of Energy Radiological Monitoring and Scientific Work at Bikini, Enewetak, Rongelap, and Utrik, $2.6 million;

(5)USDA Agricultural and Food Programs for the peoples of Bikini, Enewetak, Rongelap, and Utrik, $2.5 million;

(6)Enjebi Community Trust Fund, $2.5 million;

(7)Bikini Atoll Resettlement Trust Fund, $30.0 million;

(8)Rongelap Rehabilitation and Resettlement, $57.0 million;

(9)Ebeye-Gugeegue Causeway, $1.0 million;

(10)Construction of Facilities for the College of Micronesia, $10.0 million (including $3.3 million for relocation of the Nursing School from the Northern Mariana Islands to the Marshall Islands);

(11)College of Micronesia Operations, $1.55 million;

(12)Capitol Building, $7.4 million;

(13)Medical Referral Debts, $4.0 million;

(14)Coastal Atlases and Coastal Resource Management Plans for the Marshall Islands, $550,000;

(15)Mineral Resources Survey, $733,361;

(16)Majuro Flush Toilets, $750,000;

(17)Operation of Majuro Sewer System, $250,000;

(18)Expanded Secondary School Facilities, $4.0 million; and

(19)Maintenance of Infrastructure, $700,000.

I would like to furnish additional detail on each of these requests.

Technical Assistance. In addition to being eligible for technical assistance from several federal agencies as mandated by Section 105(l) of P.L. 99-239, the Freely Associated States have benefited from the program of technical assistance administered by the Office of Territorial and International Affairs. We are most grateful for the support we have received from the OTIA program and we request that funding for the program be approved for Fiscal Year 1989 at the same level provided in Fiscal Year 1988.

Mr. Chairman, as our responsibilities increase with self-government, so does the need for technical assistance. Technical assistance has become even more important as federal grant programs are being withdrawn and the Government of the Marshall Islands begins to devise programs to take their place.

In the past, the OTIA program of technical assistance has proven to be an effective, cost-efficient means for establishing needed administrative procedures and improving the technical proficiency of our own civil servants. Under the sponsorship of this program, experts in various technical fields would be employed for a set period of time and complete an agreed-upon body of work. Thus, our requests for a particular project of technical assistance have always been modest. Generally, the grants for technical assistance have contributed directly to developmental projects. Most of the technical assistance grants received during the past eighteen months have related to the new responsibilities which our government has assumed under the Compact. There are a number of areas in which we are still seeking short-term technical expertise, including the major study of our national education system which I spoke of earlier in this statement.

War Claims. We deeply appreciate the appropriation for Fiscal Year 1988 of partial payment of the claims by the Micronesian people for damage and loss to person and property caused by the hostilities of World War II. Together with the other political entities of Micronesia, we request that remaining payment for the claims, in the amount of $11,750,000, be appropriated in the budget for Fiscal Year 1989. Authorization for the war claims payments was contained in P.L. 95-134.

DOE Radiological Health Care Program for Rongelap and Utrik. Section 103(h)(1) of P.L. 99-239 provides that, at the request of the Government of the Marshall Islands, the United States would continue to provide special medical care and logistical support to the residents of Rongelap and Utrik Atolls who were exposed to radioactive fallout resulting from the 1954 "Bravo" test. We ask you to honor the assurance of Senate Concurrent Resolution Number 171 of the Ninety-Ninth Congress that the Department of Energy Radiological Health Care Program is a special and continuing moral obligation of the United States Government and shall continue for the first eleven years of the Compact. At this time, we request an appropriation of $2.45 million to provide these services for Fiscal Year 1989.

DOE Radiological Monitoring and Scientific Work at Bikini, Enewetak, Rongelap, and Utrik. Attached are the five-year plans developed by the Brookhaven National Laboratory and the Lawrence Livermore National Laboratory to provide radiological safety to the returning community and construction workers at Bikini Atoll and a continuation of environmental scientific studies regarding the uptake of radioactivity into the food crops. This monitoring and scientific work are considered vitally important to the resettlement of areas of Bikini, Enewetak, and Rongelap Atolls previously considered too dangerous for human habitation as a result of contamination caused by the U.S. Nuclear Testing Program. My government endorses the recommendations developed by the two national laboratories and requests an appropriation in the amount of $2.6 million for Fiscal Year 1989 for this medical and scientific work. We would also note that, although Utrik Atoll was exposed to heavy radioactive fallout from the 1954 Bravo test, the levels of residual radioactivity at Utrik have not been tested in recent years and no work at Utrik is contained in the five-year plans of either of the national laboratories. The leadership of Utrik has expressed concern that this issue is not being addressed and, on behalf of the people of Utrik, we request that the levels of radioactive contamination at Utrik be reassessed periodically.

USDA Agricultural and Food Programs--Bikini, Enewetak, Rongelap, and Utrik. By the terms of Section 103(h)(2) of P.L. 99-239, at the request of my government, the Government of the United States is required to provide food support to the people of Bikini and Enewetak for the first five years that the Compact is in effect. We have requested that comparable levels of food support be provided to the people of Rongelap and Utrik. For Fiscal Year 1989, we request that the amount of $2.5 million be appropriated for this purpose. This funding will enable the continuation of an ongoing agricultural planting and maintenance program on Enewetak, for which my government has assumed the administrative responsibilities previously handled by the Trust Territory Government, and the continuation of food support programs for the people of the four atolls affected by the U.S. Nuclear Testing Program.

Enjebi Community Trust Fund. The island of Enjebi in the northern portion of Enewetak Atoll was the site of many of the nuclear tests in the 1940's and 1950's. In the past, this area of the atoll has been considered by Department of Energy physicists to be unsafe for human habitation and, as a consequence, the villagers who were removed from Enjebi and their descendants have been forced to reside elsewhere. Most of them now live in the main village of Enewetak or at Ujelang Atoll. The United States has committed itself to the clean-up and resettlement of Enjebi Island and has already provided the amount of $7.5 million as the initial endowment for a $10.0 million trust fund that will enable the people of Enjebi to reestablish their own village on its former site (if it is found to be safe) or elsewhere (if need be). We ask that you appropriate the additional $2.5 million required to capitalize the Enjebi Community Trust Fund.

Bikini Atoll Resettlement Trust Fund. The Government of the Marshall Islands fully supports the plea of the Bikinians to return to their homeland and, to further this purpose, my government requests an appropriation in the amount of $30.0 million as the first portion of the endowment of a trust fund sufficient to enable the people of Bikini to remove the contaminated soil from their lands, build up a replacement layer of top soil, and reconstruct their homes and community facilities.

Rongelap Rehabilitation and Resettlement. My government strongly endorses the plans that are being developed by the people of the Rongelap community for the resettlement of their homeland and for the application of preventative technologies to restrict the radioactive contamination of their food crops. The report of the Rongelap Reassessment Project is being presented to the Congress in the current hearing, as is the plan for resettlement. We would urge the Congress to study these documents in tandem so that the resettlement of Rongelap can take place in the near future in full safety. Authorization for an appropriation to restore the habitability of Rongelap is given in Section 103(i)(2) of P.L. 99-239.

KADA Infrastructure Projects. The attached report from the Kwajalein Atoll Development Authority (KADA) summarizes recent progress in the expansion of infrastructure at Ebeye. My government has contributed directly to much of this developmental activity and will continue to support efforts to alleviate the crowded living conditions of Ebeye. KADA is requesting appropriations for two developmental projects: the Ebeye-Gugeegue Causeway and a new dock at Ebeye. For the reasons cited in the KADA report, my government fully endorses these requests. The construction of a substantial dock at Ebeye is a long-standing need and an application is now pending with the U.S. Economic Development Administration to provide a grant that will enable this project to commence. At the same time, several strategies are being considered for construction of the causeway; in this regard, my government fully supports the budget recommendations made by the House Committee on Interior and Insular Affairs to the effect that OTIA help identify a source of $1,000,000 required for the first segment of the causeway, which would connect Ebeye with South Loi Island.

College of Micronesia Construction. My government fully endorses the proposal by the House Committee on Interior and Insular Affairs that the amount of $10.0 million be appropriated for construction of a new campus for the College of Micronesia in Pohnpei, relocation of the Nursing School from the Northern Mariana Islands to the Republic of the Marshall Islands, and renovation of the Micronesian Occupational Center in the Republic of Palau. The House Committee viewed this support to the College of Micronesia system as a responsibility that the United States should meet in terminating the Pacific Islands trusteeship. Furthermore, the U.S. Administration had committed itself to examining these construction costs when it concluded the agreement for implementing the Compact with the Federated States of Micronesia in October 1986.

At an expense of $450,000, the Government of the Marshall Islands has renovated the old Majuro hospital to serve as a temporary facility for the College of Micronesia Nursing School, which relocated from Saipan in September 1986. Since the present facility lacks sufficient office space and classroom space and is too far away from the new hospital, the Nursing School is still seeking a permanent structure close to the new Majuro hospital.

The presidents of the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands endorsed the construction of such a nursing school in the Saipan Accords of October 5, 1983.

To fulfill the demand for qualified nursing personnel in Micronesia, the Nursing School will be an integrated medical learning facility. The school will have facilities to train approximately sixty students, with living accommodations for fifty students and ten school officials. I believe that completion of the Nursing School is essential to our effort to train enough nurses, including nurses for the Intensive Care Unit and the Neo-natal Unit of the new Majuro hospital; we have not been able to open either of these units due to the lack of qualified medical professionals.

The site designated, and already leased, for the Nursing School is directly adjacent to the new Majuro hospital, which, with eighty-one beds and nearly 60,000 square feet of space, has the potential of becoming the most sophisticated and best equipped hospital in the region. The school will operate in close cooperation with the hospital, utilizing its facilities, equipment, and staff for practical training programs. The new facilities will be of institutional quality construction with special emphasis on minimizing the harsh and corrosive effects of the tropical environment. A copy of the specifications for the project are attached. This project will cost approximately $3.3 million and we request that an appropriation in this amount be specifically earmarked for the Nursing School.

College of Micronesia Operations. Together with the governments of the Federated States of Micronesia and Palau, my government has continued to support the unified College of Micronesia system. All three of governments have ratified a treaty that makes provision for coverage of operational costs to the college for Fiscal Years 1988 and 1989. As reported earlier in this statement, my government has made a significant financial contribution to the college system. The Government of the Marshall Islands stands with the two other governments in requesting that the U.S. Department of the Interior contribute a share of the annual costs of the college system in addition to the contribution it now makes on behalf of Palau. We request that the DOI restore to previous levels its annual operational grant to the college. A continuation of this block grant to the college would be transitional in nature, allowing the three governments of Micronesia adequate time to make provisions for the continuation of the College of Micronesia system. The Micronesian governments meet regularly to formulate a program of financial support to the college system, with the latest review conference taking place this month.

Capitol Building. Although Congress has appropriated the amount of $2.6 million for the construction of a capitol in the Marshall Islands, the estimated cost of an adequate facility is $10.0 million. We respectfully request that this Committee appropriate the amount of $7.4 million to fully fund the capitol construction. Funding for such a project has long been considered by the United States Government to be one of the final obligations of the TTPI administration.

Medical Referral Debts. Medical referral debts with the Tripler Army Medical Center in Hawaii still remain unpaid despite commitments made by the U.S. Government in Sections 105(d)(2) and 105(j) of the Compact legislation to cover such debts incurred prior to September 1, 1985. Last year, at the prompting of the Congress, the Government of the Marshall Islands submitted to the Department of the Interior an itemized list of all medical referral debts outstanding as of that date. The total amount of this debt is $1,333,000. In addition to this amount, my government has already paid United States physicians and medical institutions a total of $2,672,000 for medical expenses incurred from 1982 through 1986. In accordance with Section 105(d) of P.L. 99-239, I would ask this Subcommittee to approve an appropriation for the full amount of these expenses--both paid and unpaid--for earlier medical services. I feel that the entire amount is due to my government and that it would be unfair for my government to be penalized for having cleared a sizeable portion of its medical debt.

Coastal Atlases and Coastal Resource Management Plans. Funding was approved in Fiscal Year 1988 for the first phase of the preparation of Coastal Resource Atlases and Coastal Zone Management Plans for the atolls and islands of the Marshall Islands. The first phase of the project would conduct studies of the most populous atolls of the nation. The assessment of resources produced by this project will contribute substantially to the economic advancement and self-sufficiency of the people of the Marshall Islands, and these are common goals of our two nations. The information generated by the project will also serve to protect the environment, inasmuch as the most populous atolls are likely to be impacted by industrial and commercial development. With the guidance of the atlases and management plans, such activities could be zoned into areas where they would be less harmful to the ecosystems of the atolls. Such technical assistance is authorized by Section 226 of P.L. 99-239. This project is also specifically referenced in the Implementation Agreement concluded between the two nations in October 1986. The second phase of the project, for which we are now seeking funding, will extend the project to the northwest portion of the nation--the area affected by the U.S. Nuclear Testing

Program--where a certain amount of rehabilitation and resettlement will be taking place during the next few years.

Mineral Resources Survey. The requested funding would provide an important inventory of the oceanbed mineral resources of my nation. The data generated by this survey would serve to identify target areas of rich mineral deposits and would provide the information that might attract industry to my nation. Certain preliminary work performed by the U.S. Geological Survey during a few days in 1984 indicated that ferromanganese crusts on the submerged ridges, seamounts, and guyots of the exclusive economic zone of the Marshall Islands may hold a potential for commercial exploitation. The requested appropriation, $733,361, would enable the U.S. Geological Survey to conduct thirty days of at-sea work in five regions of the Marshall Islands that have shown promise for economic development. (The estimate was developed by USGS officials since they visited Majuro last November.) The survey would sample the mineral crusts on the most promising seamounts and develop a series of maps that would serve as a guide to any future ocean mining.

Majuro Flush Toilets. Through its construction grant programs, the U.S. Government has authorized the construction in the urban area of Majuro Atoll of a gravity wastewater collection and disposal system utilizing salt water for flushing . Approximately 14,000 people are to be served by this system. The complete $13.5 million system should be on line by late spring of 1988.

However, the project does not provide for connection of the new sewer system to existing household sanitary facilities nor does it supply sanitary facilities to those houses without existing water flush systems. Many residences do not have water flush systems and the use of drop toilets or direct use of the shoreline reef is an established norm. A household survey conducted in 1986 as part of the comprehensive water study of Majuro Atoll indicated that at approximately 750 out of 1,200 households either the home did not have a flush type toilet or existing facilities were unsatisfactory and needed to be replaced. Due to social and economic factors, there is resistance to suggestions that households pay for their own facilities or pay to be connected to the sewer system. The average income per residence (of approximately eight people) is estimated to be $7,500 per annum.

The U.S. Environmental Protection Agency has provided a construction grant to pay for household sewer connections. However, we still have to deal with the problems of providing sanitary facilities to those who do not have them and replacing unsatisfactory facilities.

We seek an appropriation from the Congress to provide an inexpensive simple flush latrine to 750 households. A grant amount of $750,000 is requested to complete the basic design, construct the facilities, and install the 750 units. A unit would consist of a simple small latrine with a concrete floor, one-inch walls and roof constructed of ferro-cement, a tank toilet flushed with saltwater, and a saltwater outside faucet.

Operation of Majuro Sewer System. My government feels that it would be unrealistic to charge individual users the full cost of operating and maintaining the new Majuro sewer and saltwater system. Any attempt to charge the users the full cost would cause many of them to return to the original means of disposal. We anticipate that part of the cost for operating the system will have to be subsidized.

My government recognizes its obligation to operate and maintain the system, but seeks financial support from the U.S. Government to assist in start-up and continuing operational costs for the system. The annual estimated cost to operate and maintain the system, including the provision for an expatriate manager, is estimated to be $290,000. Of this cost, approximately $40,000 will be required to cover energy costs to operate the system equipment. The other costs are: Expatriate Manager, $80,000; Local Personnel, $50,000; Materials, $30,000; Chlorine, $13,000; Repair Parts, $60,000; and Marshall Islands Development Authority Administration, $17,000. The expatriate manager will not only provide the technical expertise required to operate and maintain the system, but will also train the work force for the new system.

We are requesting that the amount of $250,000 be appropriated by the Congress for this purpose. My own government will cover the energy cost for operating the sewer system. The appropriation would help ensure that the considerable investment in the sewer infrastructure will be protected and that the system will be operated and maintained in an acceptable manner.

Expanded Secondary School Facilities. Public secondary education was introduced in the Marshall Islands twenty-five years ago. The expansion of secondary school facilities has never taken place at a level to accommodate all of the eighth grade finishers. My government is committed to establishing new high schools at Ebeye and Likiep in the near future. We also intend to fully utilize the classroom space constructed at Jaluit high school in the mid-1970's but never fully used.

In an attached statement, the elected leadership of Jaluit Atoll is requesting that the Congress appropriate as much as $4.0 million to complete construction of the Jaluit High School. The high school was opened in the fall of 1974 to serve the elementary school finishers in the southern and central areas of the nation. Congress had provided funding for the construction of sufficient classrooms to accommodate 600 students. Unfortunately, only one-fourth of the dormitory rooms planned for the campus were ever constructed, with the result that the second high school in the Marshall Islands has space available for only 128 boarding students and is severely limited in enrollment capacity. Although it is the view of my government that at least two of the remaining dormitories should be constructed as planned, as should certain support facilities for the student population, we believe that the additional structures can be constructed more economically than the Jaluit leadership has indicated and we recommend that a significant portion of the requested $4.0 million be used to support construction of the new regional high schools at Ebeye and Likiep.

Maintenance of Infrastructure. My government is requesting an appropriation in the amount of $700,000 to finance the maintenance of infrastructure. Many of the public buildings, roads, docks, and other capital improvement projects constructed in the past two decades require regular and continuous maintenance, which has sometimes been neglected in years past. Such maintenance will add many years to the useful life of the major capital improvement projects constructed by the TTPI Government and my own government, with the result that the capital investments of my government can be devoted to school buildings and economic development instead of being used for extensive renovation or reconstruction of existing facilities.

## Conclusion

Mr. Chairman, I wish to thank you for the opportunity to submit testimony to the Appropriations Committee regarding

**appropriations for Fiscal Year 1989 and I thank you for the kind attention that you have given to the concerns of my government. To the people of the Marshall Islands, every one of the issues I have raised is important. I know that officials of this Committee have shown great concern for the well-being of the Micronesian nations, that you are committed to seeing that the relationship of free association is successful, and that, for the reasons I have offered, you will give full and fair consideration to the requests my government has placed before you.**

**In all that I have said today, I have not intended to qualify in the least the commitment of my nation to the ties established between our nations by the Compact of Free Association. That document defines much about the relation of the Marshall Islands to the rest of the world. Our commitment to the ties of free association is stronger than ever and we greatly appreciate the opportunity to work with the Congress to find ways to correct a few of the unforeseen difficulties that have become apparent in the first year-and-a-half of this special bond between our nations.**

**Kom kanuij in emol.**

## STATEMENT OF JONATHAN M. WEISGALL, LEGAL COUNSEL, PEOPLE OF BIKINI

Thank you for providing the people of Bikini the opportunity to testify before you today on the cleanup and resettlement of Bikini Atoll.

The U.S. Government has made three separate commitments to clean up and resettle Bikini. Article VI of the Compact Section 177 Agreement states that the United States will provide funds for the resettlement of Bikini Atoll "at a time which cannot now be determined." Second, Section 103(l) of the Compact of Free Association Act provides:

> The Congress hereby determines and declares that it is the policy of the United States, to be supported by the full faith and credit of the United States, that because the United States, through its nuclear testing and other activities, rendered Bikini Atoll unsafe for habitation by the people of Bikini, the United States will fulfill its responsibility for restoring Bikini Atoll to habitability . . . .

This section goes on to authorize to be appropriated such sums as are necessary to implement the third U.S. commitment -- an agreement reached in March 1985 between the United States and the people in settling a federal district court lawsuit in Honolulu, in which the Bikini people sought to force the United States to conduct a cleanup and rehabilitation of Bikini. That settlement agreement states that the United States Government "pledges to the people of Bikini to use its best efforts to facilitate the steps necessary to achieve [the rehabilitation and resettlement of Bikini Atoll]." Under the agreement, the availability of these funds depends upon the following conditions:

1. Submission of a final report to Congress by the Bikini Atoll Rehabilitation Committee (BARC), a blue-ribbon committee established by Congress in 1982 to determine the feasibility and cost of a cleanup;

2. Acceptance by the Bikinians of this final report; and

3. The development of a plan by the United States, in consultation with the people of Bikini and based to the maximum extent practicable on the final report, for the use of these funds.

Despite these commitments, the Executive Branch has yet to live up to its obligations to seek funding for the cleanup. Indeed, in the more than three years since the lawsuit has been settled, the Executive Branch has not even sought funding for BARC to finish its research so it could issue a final report, as called for in the settlement agreement. By failing to request funding for BARC to complete its work, the Administration was essentially seeking to prevent that committee from ever coming up with cost estimates, thus delaying indefinitely its obligation to request funds based on those cost estimates.

The Administration's position seems to be that it will not seek any funding until BARC goes out of business. BARC is scheduled to issue its final report this summer, but the scientists' work will continue at least until April 1989. If the Administration takes the formalistic position that it will not seek funding until BARC goes out of business, there will be no budget request for three more years -- not until the FY 1991 budget.

More important, however, is the fact that for Eneu Island at Bikini Atoll, BARC has submitted a final report. Since 1984 BARC has stated unequivocally in four separate reports that Eneu needs no radiological cleanup and may be resettled now, assuming the availability of imported food.[1] Professor Henry I. Kohn, the Chairman of BARC, clarified this point two years ago at the House Interior Appropriations Subcommittee hearing:

> MR. WEISGALL. Could I ask clarification from Dr. Kohn? Is it fair to say as far as the committee is concerned, Eneu can be settled today? In your opinion, is there a final report on Eneu?
>
> DR. KOHN. I say yes. This report starts out with an abstract. I don't have to repeat it. It says Eneu may be resettled now.[2]

BARC issued its final report on Eneu four years ago. The Bikini people accept this conclusion (see the second condition for settlement), and the United States has contracted with the engineering firm of Holmes & Narver to develop a plan for Eneu (see the third condition). Holmes & Narver, working closely with the Bikini people, prepared a Conceptual Design Report for Eneu 16 months ago. There is no excuse for the Administration's failure to ask for funding at least for Eneu Island, in light of its pledge to use its "best efforts . . . to achieve [the rehabilitation and resettlement of Bikini Atoll]."

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[1] *See* BARC Report No. 1 (November 15, 1984) at 15: "Unrestricted use of Eneu and several other islands is now permissible"; BARC Report No. 2 (November 15, 1985) at 7: "BARC's Report No. 1 covering its work for FYs 1983 and 1984 concluded that Eneu may be resettled now;" BARC Report No. 4 (March 31, 1986) at 7: "Eneu may be resettled now"; BARC Report No. 5 (March 31, 1987) at 3: "As reported previously, Eneu may be resettled now."

[2] *Department of the Interior and Related Agencies Appropriations for 1987: Hearings Before a Subcommittee of the House Committee on Appropriations*, 99th Cong., 2d Sess. 1083 (1986).

Eneu Island resettlement, as you know, has begun. At the urging of this Subcommittee, Congress last year appropriated $2.3 million to commence work on Eneu, and a groundbreaking ceremony was held there just two weeks ago. All of this was accomplished without the Administration's support.

Why is the Administration not seeking funding for Bikini? The reason, I have been told, is the position the Bikinians have taken in litigation pending in the U.S. Court of Appeals for the Federal Circuit that could have a serious adverse effect on the United States' effort to implement the Compact. In an effort to break this impasse, the Bikinians, more than six months ago, proposed a new approach to the Administration to seek to resolve all these outstanding problems. They have proposed to drop all pending litigation against the United States in exchange for a trust fund they would control to fund the rehabilitation and resettlement of their atoll. This approach would:

-- Relieve the United States of its obligation to clean up and resettle Bikini, as it did at Enewetak;

-- Give the Bikinians the power to decide how to clean up and rehabilitate their own lands;

-- Put a cap on total U.S. liability;

-- By dropping all litigation, spare the United States potential embarrassment over the validity of the espousal agreement in the Compact Section 177 Agreement and the question of international recognition of Marshallese sovereignty;

-- Prevent the reopening of the 1985 Honolulu lawsuit; and, perhaps most important,

-- Save the U.S. Government over $100 million by using the trust fund approach.

The Administration has yet to respond formally to the Bikinians' proposal. Cleanup and resettlement is ready to begin, and the Administration has failed to take any action whatsoever to move this process along. If anything, it has deliberately taken steps to avoid having to request appropriations to meet its obligations not only in the Compact, but in the settlement agreement as well, which was negotiated directly with the Bikini people and whose terms were approved by the Interagency Group on Micronesia, which includes the Office of Management and Budget.

Mr. Chairman, as you know, you and Senator McClure, in your capacities as Chairman and Ranking Minority Member of the Energy and Natural Resources Committee, have criticized the Administration's failure to act on the Bikinians' proposal. Your January 26 letter to President Reagan (Attachment 1 to my testimony) warned that "the Administration is drifting toward a policy which will result in substantially increased costs to the U.S. Government, and in continued litigation." The letter also stated:

> Our nation has a clearly stated commitment to assist the people of Bikini in returning to their homeland. The Department of Energy, the Department of the Interior, the Department of State, the Department of Justice and the Office of Management and Budget were all involved

> in the recognition of this commitment and all have a role in its fulfillment. Nevertheless, interagency bickering and buck-passing has resulted in a collapse of Executive branch leadership and the failure of U.S. government to meet this commitment. In view of our moral obligation to the Bikinians this situation is unconscionable.

You concluded that the trust fund approach "has merit and deserves . . . careful consideration by the Administration," and you urged "that the Administration move quickly to reconsider its policy in this matter."

The State Department's response of March 11 from Assistant Secretary Fox (Attachment 2 to my testimony) acknowledged that the "Administration shares your view that the United States has an unfulfilled moral and legal obligation to the people of Bikini with respect to resettlement." He stated that the Executive Branch agreed "that there might be merit in a comprehensive settlement," but he expressed concern that an agreement "might be treated by the Bikinians as nothing more than a basis for renewal of excessive requests to Congress for additional funding, as well as yet another round of the contentious litigation and anti-U.S. propaganda campaigns by the Bikini people when their demands are not met."3/ He concluded that the Administration would give "careful consideration" to "a proposal which provides adequate assurances that a reasonable and realistic trust fund settlement would end the litigation and enable the Bikini people to accept responsibility for the decision which must now be made on the resettlement issue . . . ."

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3/ If pointing out to Congress, the courts and the United Nations the U.S. Government's (to use your word) "unconscionable" failure to meet its obligations to the people of Bikini constitutes an "anti-U.S. propaganda campaign," the Bikinians are in good company.

Such a proposal is on the table. The Bikinians are willing to terminate all existing litigation, not reopen the 1985 resettlement agreement and not seek additional Congressional funding if all parties can agree on the amount of money to be appropriated to the trust fund and the time of funding. Your letter was correct in stating that this trust fund approach will save the U.S. Government up to $100 million. Indeed, it could save up to $118 million. Let me review the cost figures for the cleanup and resettlement of Bikini.

According to reports prepared by BARC (and updated for FY 1989 dollars), the total cost for cleanup and resettlement ranges from about $130 million to $208 million. Cleanup costs range from $22.4 million-$100.7 million, depending upon the cleanup method employed. Resettlement costs would be approximately $108 million, regardless of the cleanup method employed, as shown below (see Attachment 3 for details):

Resettlement Costs for Bikini Atoll

| | 1989 dollars (millions) |
|---|---|
| Bikini Island | $ 45.8 |
| Eneu Island | 37.2 |
| Operation and maintenance | 25.0 |
| | $108 |

The only variable is the cost of a cleanup, but even then BARC has established a range of costs, depending on the cleanup method selected. According to Appendix C of BARC's Report No. 4 (March 31, 1986) (p. C-12), the least expensive option for cleanup would be to use the potassium fertilizer and sea water treatment, together with a small amount of excavation (scraping) near the residences and main agricultural areas. This option, according to BARC, would range between $11-33 million (FY 1986 dollars), but recent estimates support a $20 million figure ($15 million for potassium and seawater, and $5 million for excavation). Adding 12% to this figure for CPI to FY 1989 ($2.4 million) results in a best-case cleanup option of $22.4 million. Added to the two fixed costs above of $108 million, this brings the total best-case cost of cleanup and resettlement to $130.4 million.

At the other extreme is the worst-case (or most expensive) cleanup option, which BARC estimates at between $66-88 million, with $82 million the most recent estimate. To this number, according to BARC, must be added an additional $8 million for revegetation, bringing the total to $90 million. The 12% CPI factor adds $10.8 million, for a total of about $100.8 million. Added to the two fixed costs of $108 million, this brings the total worst-case cost of cleanup and resettlement to $208.8 million.

In summary, according to BARC's own estimates, which have been confirmed by the architecture and engineering firm of Holmes & Narver, the total cost of cleanup and resettlement ranges from $130.4-$208.8 million. All of these cost figures have been submitted to OMB.

What the Bikinians are asking for would, indeed, save the United States as much as $118 million. They ask you for a three-year appropriation totaling $90 million to the Resettlement Trust Fund for the People of Bikini to enable them to carry out the cleanup and resettlement program. They further recommend that each year's $30 million appropriation be divided evenly between the budgets of the Interior and Energy Departments, so that, in rough terms, the cost of radioactive cleanup be borne by the Energy Department while the cost of resettlement be borne by the Interior Department.

Even in the absence of a final and definitive report on Bikini Island, we know that a cleanup is feasible. The only unresolved question is the method of cleanup. Even then, we know that cleanup and resettlement will cost at least $130 million. It could go over $200 million. With that range, why not begin to appropriate the minimum amount now? Isn't that the "best efforts" promised by the Administration in the 1985 settlement agreement? Why wait three more years -- or even one more year -- when the minimum costs are known today? Let's get the ball rolling with at least the minimum costs.

* * *

On the subject of Bikini Island cleanup, BARC is studying three methods -- a scrape of the top 16 inches of the island's topsoil, treatment of the soil with potassium-rich fertilizer and sea water irrigation. The Bikini people want the soil scraped, but they are willing to explore the other two options. Although BARC intends to issue its final report this summer, all parties involved -- including the Bikinians -- agree that Lawrence Livermore National Laboratory (LLNL) should continue to monitor its potassium experiments at Bikini in order to determine how long the potassium fertilizer blocks the uptake of cesium-137 and thus how frequently potassium would have to be applied to Bikini's soil. Unfortunately, the Department of Energy has not requested funding for this aspect of LLNL's work beyond October 1 of this year.

Despite the Bikinians' preference for a scrape of Bikini Island's soil, they feel it would be folly to cut off LLNL's research funding just as its scientists are learning the duration and effectiveness of the potassium treatments. In order for the Bikinians to make an informed decision as to the best method of cleaning up Bikini, they therefore ask this Subcommittee to appropriate the $1.4 million needed for Lawrence Livermore scientists to continue their field work at Bikini for FY 1989. This appropriation could be made to the Interior Department and passed on to Livermore through the existing memorandum of agreement between the two agencies, or, given the overlapping membership between this Subcommittee and the Appropriations Subcommittee on Energy and Water Development, it might be more appropriate to work with that subcommittee and appropriate the funds directly through the Department of Energy.

I would be pleased to answer any questions you may have.

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## ATTACHMENT 1

January 26, 1988

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

We are writing to express our concern regarding the cleanup and resettlement of Bikini Atoll. We are concerned that the Administration is allowing an opportunity to resolve these issues to slip by. Instead, the Administration is drifting toward a policy which will result in substantially increased costs to the U.S. government, and in continued litigation. We urge that the Administration move quickly to reconsider its policy in this matter.

All three branches of the U.S. Government have been involved in the development of the United States' commitment to restore Bikini Atoll to habitability. This commitment is described in three documents: in Section 103(1) of the Compact of Free Association, passed by Congress and signed by the President; in Article VI of the Compact Section 177 Agreement, negotiated by the Administration and approved by Congress; and in the March 15, 1985 lawsuit settlement between the people of Bikini and the U.S. Government, negotiated by the Administration and recognized by the U.S. District Court in Honolulu. The implementation of these provisions anticipated the leadership and cooperation of the Executive branch of the U.S. Government. For example, the 1985 settlement agreement states that the U.S. Government "pledges to the people of Bikini to use its best efforts to facilitate the steps necessary to achieve... (the rehabilitation and resettlement of Bikini Atoll)." Furthermore, this settlement agreement specifically anticipated the development of a plan for the rehabilitation of Bikini Atoll. The development of such plan clearly anticipated the cooperation of the Executive branch.

Despite these commitments, the Executive branch failed to request funding for the continued scientific studies of the Bikini Atoll Rehabilitation Committee (BARC). Moreover, despite repeated statements by BARC that the island of Eneu in Bikini was ready for resettlement, the Executive branch failed to request funds to facilitate resettlement. Most recently, and of greatest concern to us, the Executive branch has failed to carefully consider a proposal by the people of Bikini of a new approach for the final resolution of litigation and the fulfillment of U.S. commitments. The Bikinians have proposed to drop all pending litigation and to assume responsibility for the rehabilitation and resettlement of Bikini, in exchange for additional appropriations to the Bikini Resettlement Trust Fund. We believe that this approach has merit and deserves your careful consideration. This approach could save the U.S. government up to $100 million in rehabilitation and resettlement costs, put a cap on U.S. liability, put the Bikinians in charge of their resettlement, resolve pending litigation, and prevent the reopening of the 1985 lawsuit settlement.

Our nation has a clearly stated commitment to assist the people of Bikini in returning to their homeland. The Department of Energy, the Department of the Interior, the Department of State, the Department of Justice and the Office of Management and Budget were all involved in the recognition of this commitment and all have a role in its fulfillment. Nevertheless, interagency bickering and buck-passing has resulted in a collapse of Executive branch leadership and the failure of U.S. government to meet this commitment. In view of our moral obligation to the Bikinians this situation is unconscionable. As a practical matter, its continuation invites further litigation which will undermine and possibly wreck U.S. efforts to terminate the United Nations Trusteeship Agreement and obtain international recognition of the sovereignty of the Republic of the Marshall Islands.

The fulfillment of the U.S. government's commitment to the people of Bikini is best achieved through the leadership of the Executive branch, in cooperation with Congress. We urge that you seize this opportunity and work closely with the Bikinians on developing a plan, as anticipated under the 1985 settlement, to meet our government's commitments and to resolve ongoing or potential litigation.

Your careful consideration of this request is appreciated.

Sincerely,

James A. McClure

James A. McClure
Ranking Minority Member

J. Bennett Johnston

J. Bennett Johnston
Chairman

## ATTACHMENT 2

The Honorable J. Bennett Johnson,
Chairman, Committee on Energy and
Natural Resources,
U. S. Senate

1988 MAR 12 PM 12:09 MAR 11

Dear Mr. Chairman:

I am writing in further response to your letter to the President of January 26, 1988, regarding return of the Bikini people to Bikini Atoll.

Within the existing legal framework for addressing the complex issues involved in return of the Bikini people to Bikini, including the terms of the 1985 lawsuit settlement agreed to by the people of Bikini, it is not practical or even possible for the United States to develop a plan for resettlement of Bikini until the Bikini Atoll Rehabilitation Committee (BARC) has issued its final report and the people of Bikini have accepted its findings. Our current understanding is that the people of Bikini intend to seek yet further independent scientific confirmation of the BARC findings, even though BARC was organized, and its members selected, by counsel for the Bikini community. Yet, approximately $5.4 million has been expended on the BARC study for the very purpose of giving the Bikinians an independent scientific assessment of rehabilitation options. The original cost estimate for the BARC study was $400 thousand, and the final report has been delayed repeatedly due to revision of the scope of the study to satisfy the Bikinians. These circumstances explain, in part, the Administration's position that more than enough taxpayer dollars have already been made available to BARC.

Further, not only is there no obligation, but it would serve no real purpose, for the Administration to seek funding for implementation of a resettlement plan until the plan is developed and agreed to by the Bikinians in accordance with the lawsuit settlement which they signed. Again, the express requirements of that settlement include completion of the BARC study and acceptance of the findings by the Bikini people. That condition precedent to fulfillment of the obligations to which you refer in your letter simply has not yet occurred.

As your letter acknowledges, the pendency of litigation involving claims of the Bikini people against the United States, the requirements of applicable international agreements and earlier lawsuit settlements, as well as on-going scientific studies of the radiologic rehabilitation issue, necessarily involve matters of concern to the Departments of State, Justice, Interior, Energy and Defense, as well as OMB and other agencies. Thus, the Interagency Group on Freely Associated State Affairs (IG/FAS), established in accordance with Section 105(b) of P.L. 99-239, coordinates the activities of various departments with respect to the people of Bikini.

I am advised that an IG/FAS working group has carefully reviewed the proposal of the Bikini community that the legal and financial obligations of the United States with respect to resettlement of Bikini be fulfilled through establishment of a Bikini Resettlement Trust Fund. The IG/FAS working group recognized that there might be merit in a comprehensive settlement which would take into consideration the compensation and benefits which the Bikinians have received, and continue to receive, under the nuclear claims settlement contained in the Compact of Free Association, Public Law 97-257 and various other measures taken on their behalf by the Government of the United States and the Government of the Marshall Islands.

However, consideration of that proposal has not produced agreement because of justifiable concerns on the part of the Administration that any agreement reached between the Bikinians and the United States might be treated by the Bikinians as nothing more than a basis for renewal of excessive requests to Congress for additional funding, as well as yet another round of the contentious litigation and anti-U.S. propaganda campaigns by the Bikini people when their demands are not met. If the Bikinians could address themselves to a proposal which provides adequate assurances that a reasonable and realistic trust fund settlement would end the litigation and enable the Bikini people to accept responsibility for the decisions which must now be made on the resettlement issue, the Administration would be pleased to give such a proposal the careful consideration which you have urged.

The Administration shares your view that the United States has an unfulfilled moral and legal obligation to the people of Bikini with respect to resettlement. However, those obligations exist today within the framework of the generous and humane measures which have been taken by the United States to compensate and benefit the people of Bikini in light of the hardships they suffered as a result of displacement from their homes and an aborted resettlement effort a decade ago. Thus, if there is to be a new and possibly more affirmative approach taken to the outstanding question of return by some part of the modern Bikini community to Bikini Atoll, the Administration, Congress and the Bikinians need to commit themselves to a program that is based upon mutual agreement and cooperation rather than litigation and recrimination.

In the absence of such a commitment by all concerned, the Administration has no choice but to see the existing litigation through to its conclusion and to address the resettlement issue in accordance with the actual terms of the 1985 lawsuit settlement -- as opposed to the interpretation which representatives of the Bikini community often espouse. While we believe a more positive approach is both possible and desirable, it will not advance the process if Congress or the Bikinians are unable to recognize that the point of departure for any new approach is the lawsuit settlement that the Bikinians signed.

It is time for the United States Government and the people of Bikini, as citizens of the Republic of the Marshall Islands, to find value and renewed purpose -- rather than bitterness and resentment -- in the history we have shared as a result of the nuclear testing program. If this goal can be incorporated into an agreement that can be supported by Congress and the Bikinians, you can be assured of Administration interest and leadership to bring such an agreement about.

The Office of Freely Associated State Affairs will continue to coordinate IG/FAS consideration of the Bikini proposal, and I am advised that further discussions with counsel for the Bikinians have been scheduled. You will be advised of further developments in what we hope will be a productive process.

Sincerely,

Edward Fox

J. Edward Fox
Assistant Secretary
Legislative Affairs

## ATTACHMENT 3

### Bikini Atoll Resettlement Costs

I. Bikini Island Infrastructure, Community Facilities and Housing*/

A. Direct Costs

| | |
|---|---|
| Residential Housing (including sewage system) | $15,000,000 |
| Community Facilities | 4,000,000 |
| Electrical Power | 1,700,000 |
| Waterline and Storage | 1,600,000 |
| Water Distribution Systems | 760,000 |
| Sanitary Landfill | 210,000 |
| Road System | 1,400,000 |
| Dock and Harbor | 3,240,000 |
| | $27,910,000 |

| | | |
|---|---|---|
| B. Indirect Costs | $10,199,092 | |
| C. Architecture/Engineering and Project Management (10% of Direct Costs) | 2,791,000 | |
| Total for Bikini in FY 1986 Dollars: | | $40,900,092 |
| 12% CPI increase to FY 1989 | | 4,908,000 |
| Total for Bikini in FY 1989 Dollars: | | $45,808,092 |

II. Eneu Island Base Facilities

A. Direct Costs

| 1. Infrastructure | Estimated Cost**/ |
|---|---|
| Perimeter Road System | $1,317,000 |
| Main Dock & Small Boat Harbor | 2,886,000 |
| Airport | 4,135,600 |
| Runway Catchment | 1,487,600 |
| Water Collection System | 662,600 |
| Desalinization Plant | 130,000 |
| Fresh Water Collection and Distribution System | 352,000 |
| Well/Pump Station | 50,000 |
| Filtering and Treatment Plant | 184,600 |
| 300,000 gal. Treated Water Storage Tank | 110,000 |

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*/ Source: Holmes & Narver; BARC Report No. 4 (March 31, 1986), Appendix F.

**/ Conceptual Design Report, Bikini Atoll, Eneu Base Facilities prepared for USDOI/USDOE and the Bikini People, prepared by Holmes & Narver, Inc. (January 1987), Section 8.

| | |
|---|---|
| 700,000 gal. Raw Water Storage Tank | $ 249,000 |
| Salt Water Distribution System | 367,800 |
| Sanitary Sewage Line | 444,600 |
| Sanitary Landfill and Burn Area | 210,000 |
| Shoreline Protection | 544,000 |
| Power Distribution System | 1,543,000 |
| | 14,673,800 |

2. Facilities

| | |
|---|---|
| Base Housing Area | 2,553,300 |
| Service Area | 860,900 |
| Support Area | 611,900 |
| | 4,026,100 |

3. Rehabilitation of Existing Structures

| | |
|---|---|
| Power House Bunker | 64,000 |
| Timing Bunker | 146,000 |
| Communications Building | 110,000 |
| Assembly Building Area | 82,300 |
| Camp Blandy | 12,000 |
| Temporary Base Camp | 21,000 |
| | 435,300 |

4. Miscellaneous

| | |
|---|---|
| Mobilization & Support Transportation | 1,909,000 |
| Shipping & Port Handling | 1,637,700 |
| | $3,546,700 |

| | |
|---|---|
| Total Direct Costs: | $22,681,900 |
| B. Indirect Costs (indirect labor, operating expenses, general & administrative, contractors' fees, bonds & insurance, Marshall Islands gross receipts tax) | 8,288,600 |
| C. Architecture/Engineering and Project Management (10% of Direct Costs) | 2,268,190 |
| Total for Eneu in FY 1986 Dollars: | $33,238,690 |
| 12% CPI increase to FY 1989: | 3,988,642 |
| Total for Eneu Island in FY 1989 Dollars: | $37,227,332 |

III. Operation and Maintenance

Operations and maintenance costs will be needed until the Bikinians become economically self-sufficient. The program will take about ten years to implement, and it will only be after that time that the Bikinians will be able to establish a sufficient economic base at the atoll that would permit them to fund these expenses themselves.

An order of magnitude estimate for these costs on an annual basis (in FY 1989 dollars) would be:

| | | |
|---|---|---|
| 1. | Maintenance of Facilities | $ 750,000 |
| 2. | Operation & Maintenance of Utilities | 1,250,000 |
| 3. | Supplemental Subsistence | 500,000 |
| | | $2,500,000 |

Total for ten years: $25,000,000

## STATEMENT OF THE PEOPLE OF ENEWETAK

Mr. Chairman, Members of the Committee, the Council of Enewetak Atoll has asked me to present this statement on their behalf in connection with your consideration of the Fiscal 1989 Department of Interior budget as it applies to Enewetak Atoll in the northern Marshall Islands. The statement also reviews some of the events of the past year which were of particular significance to the people of Enewetak.

Irioj Johnannes Peter, the man who lead the people of Enewetak to saftey during the war against the Japanese, and who subsequently entered into the agreement with this country which permitted the use of Enewetak Atoll for the American nuclear testing program, and who, thereafter, dealt on behalf of his people for the cleanup and resettlement of Enewetak, died in November. His appeals for fair play for his people are part of the history of our relationship with the United States. Those of you who knew him, will recall a distinguished gentleman whose dignified bearing and thoughtful discourse helped win the support of Congress for the programs which were the precursors of those for which we come here today to seek funding.

The stock market crash of October 19, 1987, which reduced both the value of the Section 177 master trust fund and the Enjebi Community Trust Fund by substantial amounts, was the most tumultous event of the year. Neither fund has totally recovered from that shock. The Enjebi fund was cautiously invested and thus the resulting loss in value was less than the average decline in the stock market. Neverthless, when the market closed that day, a fund that stood at more than $5,050,000 that morning, stood at something under $4,500,000.

The radiation dose assessment study conducted of Enjebi Island (which was ground zero in most of the tests conducted at Enewetak) by Lawrence Livermore National Laboratory is finally in print. There are still many questions remaining about the timing of the eventual return and the extent of preparations needed for it. At a minimum, we anticipate that these preparations will require the full $10,000,000 scheduled to be placed in the fund.

I turn now to the specific requests of the people of Enewetak for this year's authorization of funds to continue the Enewetak support program. As usual, we start from the position that the Budget submitted by the Administration is silent on Enewetak. Notwithstanding the commitments on behalf of the Administration at the time of Congressional approval of the Compact of Free Association to continue the Enewetak support program for at least five years and to fund the Enjebi Trust Fund at the level of $10 million, the budget message cupboard is empty. Fortunately the House Interior Committee added the amount to its recommendation. We also ask for your support of this item now, and, if necessary, in conference.

Enewetak Support Program

The Compact Act, Public Law 99-239, provides in Section 103(k)(1) that the United States continue the Enewetak Support Program for five years. This is the second year of the five. For that reason, and the others that follow, we are asking that the Enewetak Support Program be funded this year at the level of $1.1 million, the amount approved last year, for the following purposes:

| | |
|---|---|
| Supplemental Food Program | $ 310,000 |
| Agricultural Maintenance Program | 160,000 |
| Field Station Operation and Maintenance | 410,000 |
| Operation of WETAK II | 120,000 |
| Administration Grant to RMI | 100,000 |
| Total | $ 1,100,000 |

At the time the Enewetak people returned to Enewetak Atoll in 1980, plantings had been made to provide, in time, a local source of customary food. Many of these are still years from bearing normally. The local food supply must be supplemented by a combination of USDA agricultural surplus foods and foods purchased from commercial sources. In addition, funds are needed to nurture and maintain the coconuts, pandanas, breadfruit and other newly planted sources of food.

The nerve center of these programs is the field station operated by Holmes & Narver. Without the Holmes & Narver field station valuable know-how would be lost, program continuity would be disrupted and it is all but certain that damage to the agricultural maintenance program would result. The WETAK II is the Community's lifeline with Ujelang and other parts of the Marshalls and nearby Micronesia. It would seriously undermine the aability of the Community to supply itself with provisions from Ujelang and elsewhere if the WETAK II were to be taken out of service for any reason.

Enjebi Resettlement Trust Fund

The Enjebi Resettlement Trust Fund was established with the $5 million provided by Congress in 1986. Pursuant to Section 103(k)(1) of the Compact Act, the Enjebi people, in consultation with the government of the Marshall Islands, have appointed a trustee and investment managers for the fund. An additional $2.5 million was appropriated in 1987 and was paid into the trust fund by the Department of the Interior. This year we ask that the Committee appropriate the $2.5 million needed to bring the fund to the $10,000,000 level originally agreed on for this purpose.

Conclusion

In closing, the Council has asked me to thank you and your colleagues for your concern and involvement. Without it, it is doubtful that there would be a community on Enewetak Atoll today.

## ADDITIONAL APPROPRIATIONS SOUGHT BY RMI

Mr. DE BRUM. Thank you, sir.

Before I begin my testimony, Mr. Chairman, I wish to congratulate you and other members of the Senate for passing the legislation that will implement the Compact of Free Association for the Republic of Palau. I hope that the House of Representatives takes similar action rapidly so that the people of Palau can join us in this new relationship.

The budget proposed by the administration falls far short of the assurance given to the Marshall Islands in the Compact of Free Association, Public Law 99–239. These shortcomings are addressed in detail in my written statement which you have been given and which we respectfully request be made part of this testimony.

I will summarize the main point of the statement, Mr. Chairman.

First, I would like to start by commenting on the recent visit by your staff to the Marshall Islands. In the past 2 months officials of your personal staff and staff of this committee have come to the Marshall Islands to look into the remedial technologies being developed by the BARC committee at Bikini and to inspect the relief effort at Ebeye, where many people were left homeless by a storm in January of this year. And also to bring close up programs to the Marshall Islands.

Needless to say, and I would be remiss if I didn't mention it, FEMA responded very effectively and quickly to our plea for assistance. FEMA is one of the agencies mentioned in our compact that we could receive assistance from in time of distress, and we are grateful for that.

We are also very grateful to you for authorizing these visits by your staff. They have led to a useful exchange of information between my nation and this committee. We thank you and your very fine staff for the interest and support you have shown us. They were also good ambassadors to your country.

I am pleased to report that with the help of this committee the Close Up Program is off to a fine start in the Marshall Islands. I hope that the close up programs will continue to be available to the students from freely associated states.

Mr. Chairman, in our written statement we have asked for the appropriations that were authorized by the Congress but not requested by the administration. The list is very much like the one we submitted to you last year. There are certain features of the compact agreements endorsed by both the U.S. Congress and my national parliament of the Marshall Islands for which every year the administration seems to fail to request funding and every year we have to come before you to ask for additional appropriations.

Every one of these additional appropriations sought by the Marshall Islands is either authorized by Public Law 99–239 or relates to some of the unfinished business and work of the trust territory government. For many of these appropriations your government has already made a very fine commitment. Many of these projects you have supported in the past, for which we are very grateful.

Allow me to summarize these requests very briefly, Mr. Chairman.

As authorized in section 103 of Public Law 99–239, we seek appropriations to support the four communities affected by the nuclear testing program. I am speaking of the people of Bikini and Enewetak whose homeland became the test site, and the people of Rongelap and Utrik, who were subjected to the heavy fallout in the 1954 testing. We ask that funding continue for their health care and for food support.

We ask for an appropriation for continuation of the scientific work to evaluate the long-term effectiveness of the technologies being developed by the BARC committee to reduce the uptake of radiation into food crops.

We ask Congress to fund the resettlement of the islands that until recently have been considered unsafe for habitation. We ask that the families who return to these islands be provided with regular radiological monitoring programs.

My government also asks Congress to appropriate, as it did last year, the sum of $5.2 million for the OTIA technical assistance program for the flag territories as well as the freely associated states.

## UNFINISHED TRUST TERRITORY BUSINESS

We also seek appropriations for what we consider to be some of the unfinished obligations of the trust territory government and administration. These obligations include payment of war claims for the Micronesia people harmed in World War II, the construction of facilities for the College of Micronesia, full funding for capital building for the Marshall Islands, and the payment of medical referral debts incurred prior to 1985.

We have been given assurance by the United States that each of these issues would be addressed.

In a related matter, we seek congressional support for certain capital improvement projects that were started in trust territory time but were not completed nor did they become fully operational.

We are asking Congress to assist us in the startup costs for the sewer system in Majuro in which we jointly invested—but more you—$13.5 million.

We also ask your help in the construction of secondary schools and the maintenance of the infrastructure that trust territory constructed in the past but never left money for their maintenance.

We fully endorse the recommendation of the House Subcommittee on Insular and International Affairs that the funding be identified to begin construction of the causeway of the northern Ebeye Islands to alleviate the crowded conditions in that community.

Finally, we seek support from the Congress for the inventory of the natural resources of the Marshall Islands.

Mr. Chairman, these are the appropriations we seek in addition to the budget submitted by the administration.

Our requests fall into the two broad categories.

One category is to the communities affected by the U.S. nuclear testing program, especially as they resettle the islands that they had once abandoned.

Second, the help that will enable us to develop into a nation and to help ourselves become increasingly self-reliant.

Once again I thank you, Mr. Chairman, for the privilege of appearing before this committee. We will do our best to answer any questions you might have regarding our remarks, in writing or verbally. Thank you very much, sir.

Senator JOHNSTON. Thank you very much, Mr. de Brum.

By the way, how is the President recuperating after his heart surgery?

Mr. DE BRUM. The President is recuperating well, sir. We saw him last Sunday on our way here. He is in good spirits and he was able to say that we should pass his regards to his friends and this committee, sir.

Senator JOHNSTON. Please give him our best if you see him before we do.

### PROPOSED BIKINI TRUST FUND

Mr. de Brum, as you know, the staff went out to Bikini recently and surveyed the situation out there. It is their feeling that a trust fund for relocation to be administered by the Bikinians themselves would be the proper route to go. What is your feeling about that? Do you have any recommendations on that?

Mr. DE BRUM. Mr. Chairman, this is probably a policy statement that would need to come from the cabinet and the President. But judging from their attitude toward the Bikini trust funds in the past, they have no objection to have that controlled by the Bikinian people themselves.

Senator JOHNSTON. You said they have no objection to that?

Mr. DE BRUM. In the past they had no objection. I will be happy to get their opinion to you, sir.

Senator JOHNSTON. I think that would be useful. Litigation is rarely successful for either party. It always takes a long, long time. We have these annual appropriation battles up here that never seem quite to get the job done. It seems to me if we could agree on an amount to be put in the trust fund, so much a year to be supplied by the Congress, that then the Bikinians could administer that fund themselves and decide on their own solution. If they elect the scrape solution, there is not going to be much left to do anything but scrape the island. That would be a choice that they would make. Or if they went the fertilizer route, of course there would be more money for other things. But that would then be decided by the Bikinians themselves.

We would appreciate it if you would get us a response on that.

Mr. DE BRUM. Yes, sir.

Senator JOHNSTON. Senator McClure.

Senator MCCLURE. I have no questions. Thank you very much. You are very welcome here and we look forward to being able to work with you.

### RMI'S ENDORSEMENT OF COMPACT

Mr. DE BRUM. Thank you, Senator.

I should mention that it is our view that the compact has been very good for the Marshall Islands and that our mutual relationship and obligation created by the compact, we are standing behind it 100 percent.

Senator JOHNSTON. Thank you very much, Mr. de Brum. We are glad to hear that.

Senator MCCLURE. One question has been suggested to me by staff. Have you experienced any problems in terms of international recognition occasioned by the delay in the resolution of the Palau question?

Mr. DE BRUM. Yes, sir; the information we have received from the Japanese Government and other governments was that once Palau's situation was cleared up that international recognition would be forthcoming without difficulty. We are experiencing that difficulty at this time, sir.

Senator MCCLURE. We hope that is resolved soon. As a matter of fact, we had hoped it would be resolved before now.

Mr. DE BRUM. We had hoped so too, sir.

Senator MCCLURE. Thank you very much.

Mr. DE BRUM. Thank you, sir.

Senator JOHNSTON. Thank you very much.

Mr. DE BRUM. Thank you, Mr. Chairman.

## REPUBLIC OF PALAU

## STATEMENT OF HARUO WILLTER, SPECIAL ASSISTANT TO THE PRESIDENT

### NEED FOR PALAU COMPACT APPROVAL

Senator JOHNSTON. Next, we have, from the Republic of Palau, Haruo Willter, Special Assistant to the President.

Welcome, Mr. Willter. Please proceed.

Mr. WILLTER. Thank you, Mr. Chairman.

I am pleased to have this opportunity to appear before this Committee on Appropriations for the Republic of Palau. President Salii, who could not be here today due to pressing matters in Palau, sends his best wishes to you and the other members of the committee. He asked me to thank you for the prompt action by your colleagues who serve on the Energy Committee and the full Senate in passing the legislative actions required to implement the Compact of Free Association.

He also requests that you and other members of the Senate encourage the House Interior Committee to take similar action so that the compact can be implemented as soon as possible.

I would like to add a certain note here to our friends from the Government of the Marshalls for their support of the compact. I promise that we will join them soon.

Senator JOHNSTON. I might say, we have been urging the House to take action on that matter. Their good counsel is here with us and I know he will get that message to them.

As a matter of fact, there was one question I had prepared here for the Virgin Islands which I didn't ask. It will give you a little flavor of this matter. The question said, in effect, that if this compact is not approved and we have to put up money for Palau on account of that not being approved, for what low priority project would you recommend deferring funding from the Virgin Islands in order to meet these unanticipated needs? [Laughter.]

I didn't ask that question, but it gives you a little indication of the enthusiasm of the staff which is shared by the members to get that compact approved. I was afraid that would give Ron de Lugo a heart attack if I asked him that question. [Laughter.]

Mr. WILLTER. Mr. Chairman, before I move on to our budget request, let me say a few words on the compact as it relates to our budget request.

While we appreciate very much the actions taken by this committee and the Subcommittee on Foreign Affairs on this issue, we are still awaiting action to be taken by the Interior Committee. The chairman of the Interior Committee has delayed action on the compact pending resolution of several issues involving law enforcement, finance, and the constitutionality of the compact approval process.

Over the past 6 months the Republic has addressed these concerns with the help of the Department of the Interior technical assistance funds. We have hired tax, finance, and public safety specialists to work with our government officials. We also have responded to all of the various audit recommendations and we have worked closely with Department of the Interior officials stationed in the Republic of Palau. Relative to the constitutionality issue, we feel that the House can pass the compact with the same language concerning a decision of the Palau court that was included in the Senate legislation. This will enable us to move forward as soon as the court renders its decision.

All of the concerns expressed by the House Interior Committee relate to issues which must be resolved by the people of Palau. We have our own constitution, our own government, and we are ultimately responsible for our actions. We look to the United States for assistance, as we have done with the Department of the Interior technical assistance program, but the final resolution of the problems remains a local matter.

Furthermore, all of the issues addressed by the committee cannot be resolved overnight and new issues will continue to surface. I firmly believe that it is time for the House Interior Committee to act on the compact because all of these concerns can be best addressed by the Republic within the provisions of the Compact of Free Association. We ask for your support and assistance on this matter.

## PALAU BUDGET REQUEST

Turning to our budget request. Our request is in two parts, the immediate funding problem we are now faced with in fiscal year 1988 and our fiscal year 1989.

On the fiscal year 1989 budget, we did not submit a budget to the Department, because we have been counting on the compact to come into effect before fiscal year 1989. I have been discussing that issue with the Department and we are working together trying to make this a reality.

The full implementation of the compact is our highest priority. We have struggled with this issue for years and the majority of our people have repeatedly voted in favor of the compact.

The provisions and funding provided in the compact will allow the Republic to solve its current political and financial problems, expand the local economy, and strengthen our government.

Continuation of funding levels appropriated in recent years by the U.S. Government are unrealistic if the Republic is to provide for the needs of our people and to develop economically. If the implementation of the compact is delayed, I ask that the U.S. Government provide the Republic with funding at the level stipulated in the compact for operations in fiscal year 1989.

Regarding the fiscal year 1988 needs. As you may know, we are experiencing financial difficulties in fiscal year 1988 similar to those experienced in fiscal year 1987. Our current estimates reflect a minimum shortfall of approximately $3.5 million for the balance of fiscal year 1988. This is a best case scenario. Without additional financial assistance from the United States, we will be forced once again to furlough government employees this coming July. This is the best estimate that we have based on fiscal year 1988 funding levels, Mr. Chairman.

We have discussed the funding issues with the Department of the Interior. They have agreed to provide us with the balance of fiscal year 1988 funds over the next 3 months. In addition, they have offered to seek legislation that would allow them to advance us compact funding. We would prefer that the administration reprogram funds from other projects for the balance of this fiscal year and initiate compact level funding in fiscal year 1989, or before, if the compact is implemented sooner.

However, if there are no viable reprogramming alternatives, we would accept the advance of compact moneys this year even though it will be borrowing against our future. The thought that this financial situation and our political future will continue into 1989 is unacceptable to many in Palau.

I urge the United States to provide us with critically needed financial assistance this fiscal year in order that we may continue to provide necessary services to our people. Until the House of Representatives approves the compact, the Republic remains a part of the trust territory and the United States has an obligation to assist us.

Mr. Chairman, the rest of the statement is before you. We have the same problems similar to those of the Federated States of Micronesia on the CIP or capital improvement shortfalls and deficiencies of capital improvement programs [CIP] which were put in place by the trust territory.

We are also asking that some assistance be provided to us to resolve our powerplant issue.

I am happy to report to the committee that last week I was in New York and attended the court session on the IPSECO matter, and that trial has been concluded and we hope that we can now move forward based on the result of the court case.

## COMPACT APPROVAL URGED

In closing, sir, I strongly urge you to continue to support the full implementation of the Compact of Free Association. We feel that is the real answer to our problems. Every day that the implementation is delayed seems like a lifetime to our people who watch our neighboring countries develop economically while we remain bound under the trust territory. Until the compact is implemented we will continue to be a ward of the U.S. Government and dependent on this committee to meet our basic obligations.

Thank you, sir.

PREPARED STATEMENT

Senator JOHNSTON. Thank you very much, Mr. Willter. I am glad the House counsel could be here to hear your very strong statement, which we endorse fully.

[The statement follows:]

## STATEMENT OF HARUO WILLTER

I AM PLEASED TO HAVE THE OPPORTUNITY TO APPEAR BEFORE THIS SUBCOMMITTEE ON APPROPRIATIONS FOR THE REPUBLIC OF PALAU. PRESIDENT SALII, WHO COULD NOT BE HERE TODAY DUE TO PRESSING MATTERS IN PALAU, SENDS HIS BEST WISHES TO YOU AND THE OTHER MEMBERS OF THE SUBCOMMITTEE. HE ASKED ME TO THANK YOU FOR THE PROMPT ACTION BY YOUR COLLEAGUES WHO SERVE ON THE ENERGY COMMITTEE -- AND THE FULL SENATE -- IN PASSING THE LEGISLATIVE ACTIONS REQUIRED TO IMPLEMENT THE COMPACT OF FREE ASSOCIATION.

HE ALSO REQUESTS THAT YOU AND OTHER MEMBERS OF THE SENATE ENCOURAGE THE HOUSE INTERIOR COMMITTEE TO TAKE SIMILAR ACTION SO THAT THE COMPACT CAN BE IMPLEMENTED AS SOON AS POSSIBLE.

### COMPACT

THE CHAIRMAN OF THE INTERIOR COMMITTEE HAS DELAYED ACTION ON THE COMPACT PENDING RESOLUTION OF SEVERAL ISSUES INVOLVING LAW ENFORCEMENT, FINANCE, AND CONSTITUTIONALITY OF THE COMPACT APPROVAL PROCESS. OVER THE PAST SIX MONTHS, THE REPUBLIC HAS ADDRESSED CONCERNS WITH THE HELP OF DOI TECHNICAL ASSISTANCE FUNDS. FOR EXAMPLE, WE HAVE HIRED TAX, FINANCE AND PUBLIC SAFETY SPECIALISTS TO WORK WITH OUR GOVERNMENT OFFICIALS. WE ALSO HAVE RESPONDED TO ALL OF THE VARIOUS AUDIT RECOMMENDATIONS; AND HAVE WORKED CLOSELY WITH DOI OFFICIALS STATIONED IN THE REPUBLIC OF PALAU. RELATIVE TO THE CONSTITUTIONALITY ISSUE, THE HOUSE CAN PASS THE COMPACT WITH THE SAME LANGUAGE CONCERNING A DECISION OF THE PALAU COURT THAT WAS INCLUDED IN THE SENATE LEGISLATION.

IN MY OPINION, ALL OF THE CONCERNS EXPRESSED BY THE HOUSE INTERIOR COMMITTEE RELATE TO ISSUES WHICH MUST BE RESOLVED BY THE PEOPLE OF PALAU. WE HAVE OUR OWN CONSTITUTION, OUR OWN GOVERNMENT, AND WE ARE ULTIMATELY RESPONSIBLE FOR OUR ACTIONS. WE LOOK TO THE U.S. FOR ASSISTANCE, AS WE HAVE DONE WITH THE DOI TECHNICAL ASSISTANCE PROGRAM, BUT THE FINAL RESOLUTION OF

PROBLEMS REMAINS A LOCAL MATTER. ALL OF THE ISSUES ADDRESSED BY THE COMMITTEE CANNOT BE RESOLVED OVERNIGHT AND NEW ISSUES WILL CONTINUE TO SURFACE. I FIRMLY BELIEVE THAT IT IS TIME FOR THE HOUSE INTERIOR COMMITTEE TO ACT ON THE COMPACT BECAUSE ALL OF THESE CONCERNS CAN BE BEST ADDRESSED BY THE REPUBLIC WITHIN THE PROVISIONS OF THE COMPACT OF FREE ASSOCIATION. WE ASK FOR YOUR SUPPORT AND ASSISTANCE.

## FY 1988 & 1989 BUDGETS

FULL IMPLEMENTATION OF THE COMPACT IS OUR HIGHEST PRIORITY. WE HAVE STRUGGLED WITH THIS ISSUE FOR MANY YEARS AND THE MAJORITY OF OUR PEOPLE HAVE REPEATEDLY VOTED IN FAVOR OF THE COMPACT. THE PROVISIONS AND FUNDING PROVIDED IN THE COMPACT WILL ALLOW THE REPUBLIC TO SOLVE ITS CURRENT POLITICAL AND FINANCIAL PROBLEMS, EXPAND THE LOCAL ECONOMY, AND STRENGTHEN OUR GOVERNMENT. CONTINUATION OF FUNDING LEVELS APPROPRIATED IN RECENT YEARS BY THE U.S. GOVERNMENT ARE UNREALISTIC IF THE REPUBLIC IS TO PROVIDE FOR THE NEEDS OF OUR PEOPLE AND TO DEVELOP ECONOMICALLY. IF THE IMPLEMENTATION OF THE COMPACT IS DELAYED, I ASK THAT THE U.S. GOVERNMENT PROVIDE THE REPUBLIC WITH FUNDING AT THE LEVEL STIPULATED IN THE COMPACT FOR OPERATIONS IN FY 1989.

AS YOU MAY KNOW, WE ARE EXPERIENCING FINANCIAL DIFFICULTIES IN FY 1988 SIMILAR TO THOSE EXPERIENCED IN FY 1987. OUR CURRENT ESTIMATES REFLECT A MINIMUM SHORTFALL OF APPROXIMATELY $3.5 MILLION FOR THE BALANCE OF FY 1988. THIS IS A "BEST CASE" SCENARIO. WITHOUT ADDITIONAL FINANCIAL ASSISTANCE FROM THE U.S., WE WILL BE FORCED -- ONCE AGAIN -- TO FURLOUGH GOVERNMENT EMPLOYEES THIS JULY.

THE PRESENT FINANCIAL SITUATION IS THE RESULT OF INADEQUATE FUNDING LEVELS OVER THE PAST SEVERAL YEARS. WHILE THE AMOUNT OF APPROPRIATIONS ($10 MILLION) ANNUALLY PROVIDED BY THE U.S. GOVERNMENT HAS BEEN FAIRLY CONSTANT SINCE 1981, THE DEMANDS ON

THE GOVERNMENT HAVE GREATLY INCREASED. OUR LOCAL REVENUES HAVE NOT BEEN SUFFICIENT TO BRIDGE THE GAP. THE INCREASE IN EXPENDITURES ARE ATTRIBUTABLE TO MANY FACTORS SUCH AS COSTS ASSOCIATED WITH SETTING UP THE NEW GOVERNMENT IN 1981; THE ASSUMPTION OF FUNCTIONS FORMERLY PERFORMED BY THE TTPI GOVERNMENT WITHOUT RELATED ~~ANY~~ INCREASE IN FUNDING, EFFECTS OF INFLATION, AND COST OF LIVING INCREASES FOR OUR EMPLOYEES, TO NAME JUST A FEW.

WE HAVE DISCUSSED THE FUNDING ISSUE WITH THE DEPARTMENT OF INTERIOR. THEY HAVE AGREED TO PROVIDE US WITH THE BALANCE OF FY 1988 FUNDS OVER THE NEXT THREE MONTHS. IN ADDITION, THEY HAVE OFFERED TO SEEK LEGISLATION THAT WOULD ALLOW THEM TO ADVANCE US COMPACT FUNDING. WE WOULD PREFER THAT THE ADMINISTRATION REPROGRAM FUNDS FROM OTHER PROJECTS FOR THE BALANCE OF THIS FISCAL YEAR AND INITIATE COMPACT LEVEL FUNDING IN FY 1989 OR BEFORE IF THE COMPACT IS IMPLEMENTED. HOWEVER, IF THERE ARE NO VIABLE REPROGRAMMING ALTERNATIVES, WE WOULD ACCEPT THE ADVANCE OF COMPACT MONIES THIS YEAR EVEN THOUGH IT WILL BE BORROWING AGAINST OUR FUTURE. THE THOUGHT THAT THIS FINANCIAL SITUATION -- AND OUR POLITICAL FUTURE -- WILL CONTINUE INTO 1989 IS UNACCEPTABLE TO MANY IN PALAU.

I URGE THE U.S. TO PROVIDE US WITH CRITICALLY NEEDED FINANCIAL ASSISTANCE THIS FISCAL YEAR IN ORDER THAT WE MAY CONTINUE TO PROVIDE NECESSARY SERVICES TO OUR PEOPLE. UNTIL THE HOUSE OF REPRESENTATIVES APPROVES THE COMPACT, THE REPUBLIC REMAINS A PART OF THE TRUST TERRITORY, AND THE U.S. HAS AN OBLIGATION TO ASSIST US.

## CIP SHORTFALLS AND DEFICIENCIES

BOTH THE HOSPITAL AND CAPITOL FACILITIES REQUIRE ADDITIONAL FUNDING BEFORE THESE PROJECTS CAN BE CONSTRUCTED AND BECOME FULLY OPERATIONAL. THE U.S. CONGRESS HAS APPROPRIATED $9.7 MILLION FOR

THE HOSPITAL, BUT CURRENT ESTIMATES PROVIDED BY THE A&E FIRM OF STONE, MARACCINE, AND PATTERSON INDICATE A NEED FOR $19 MILLION TO COMPLETE THE NEW HOSPITAL.

THE $2.6 MILLION IN FUNDING FOR THE NEW CAPITOL COMPLEX IS TOTALLY INADEQUATE IN TODAY'S DOLLARS FOR THE CONSTRUCTION OF A REASONABLE CAPITOL FACILITY FOR THE NATIONAL GOVERNMENT OF THE REPUBLIC OF PALAU.

CONCERNING THE CIP DEFICIENCIES, WE HAVE EXPERIENCED PROBLEMS WITH SEVERAL OF THE PROJECTS PREVIOUSLY CONSTRUCTED BY THE TTPI GOVERNMENT. THESE ARE THE PAVED ROADS, THE K-B SUSPENSION BRIDGE, SEWER SYSTEM, AND AIRSTRIP PAVING. ALL OF THESE ARE DETERIORATING AT AN ALARMING RATE.

INFORMATION ON THESE PROJECTS WAS PROVIDED TO THE ENGINEERING FIRM HIRED BY THE DEPARTMENT OF INTERIOR TO EVALUATE THE CONDITION OF CIP PROJECTS.

I REQUEST THAT THE U.S. CONGRESS PROVIDE US WITH ADDITIONAL FUNDS FOR BOTH THE HOSPITAL AND THE NEW CAPITOL PROJECT AND HELP US TO CORRECT THE CIP DEFICIENCIES SEPARATE FROM COMPACT FUNDS.

## POWER PLANT

THE REPUBLIC ALSO REQUESTS THAT IT BE PROVIDED WITH ASSISTANCE TO MEET THE LONG-TERM DEBT ASSOCIATED WITH THE IPSECO POWER PLANT. CURRENTLY, THE REPUBLIC IS NEGOTIATING WITH THE ~~LENDING~~ GUARANTOR BANKS TO ATTEMPT TO RESTRUCTURE THE LOAN AGREEMENT. IT HAS NEVER BEEN THE INTENTION OF THE REPUBLIC OF PALAU TO AVOID PAYMENT FOR THE POWER PLANT FACILITY. THE INTENT OF THESE NEGOTIATIONS IS TO STRUCTURE THE LOAN IN ACCORDANCE WITH THE ORIGINAL INTENT OF THE PROJECT, I.E, THAT THE REVENUES GENERATED FROM THE OPERATION OF THE PLANT WILL SERVICE THE LOAN PAYMENTS.

FOR YOUR INFORMATION, THE MATTER IS CURRENTLY UNDER LITIGATION AND THE TRIAL WAS COMPLETED LAST WEEK IN THE FEDERAL COURT IN NEW YORK. WE ARE AWAITING THE FINAL DECISION OF THE COURT AND WHEN RECEIVED, WE WILL PROCEED TO RESOLVE THIS MATTER ACCORDINGLY.

WE FEEL THAT PROVIDING ADEQUATE POWER FOR PALAU IS ONE OF THE BASIC RESPONSIBILITIES OF THE DEPARTMENT OF THE INTERIOR UNDER THE TRUST TERRITORY GOVERNMENT. THE LEAST DOI CAN DO IS TO HELP ARRANGE FOR THE RETIREMENT OF THE POWER PLANT DEBT BY PROVIDING A DIRECT APPROPRIATION; LONG-TERM INTEREST-FREE LOAN; OR SOME OTHER FORM OF REFINANCING.

IN CLOSING, I STRONGLY URGE YOU TO CONTINUE TO SUPPORT THE FULL IMPLEMENTATION OF THE COMPACT OF FREE ASSOCIATION. EVERY DAY THAT THE IMPLEMENTATION IS DELAYED SEEMS LIKE A LIFETIME TO OUR PEOPLE, WHO WATCH OUR NEIGHBORING COUNTRIES DEVELOP ECONOMICALLY, WHILE WE REMAIN BOUND UNDER AN ARCHAIC STRUCTURE CALLED THE TRUST TERRITORY. UNTIL THE COMPACT IS IMPLEMENTED, WE WILL CONTINUE TO BE A WARD OF THE U.S. GOVERNMENT, DEPENDENT ON THIS COMMITTEE TO MEET OUR BASIC OBLIGATIONS TO OUR PEOPLE.

## EMPLOYEE LAYOFFS

Senator JOHNSTON. We are very familiar with the financial problems confronting Palau. Do you anticipate laying off employees due to a shortage of operating funds? And if so, when?

Mr. WILLTER. Yes, Mr. Chairman. As I mentioned, with the agreement we have reached with the Department of the Interior to release the remaining balance of 1988 fiscal year funds to us, we will be able to meet our payroll. This is the very minimum we can do. We expect the fiscal year 1988 funds to run out around mid-July. From July until the end of the fiscal year, unless we receive the $3.5 million which, as I said, is only for payroll, we have no other alternative than to do what we did in 1987, and that would mean, sir, to furlough or to put out some 900 employees of the Republic.

Senator JOHNSTON. Nine hundred?

Mr. WILLTER. Yes, sir; it may be higher than that this year. That was the figure last year.

Senator JOHNSTON. We very much want to avoid that. I think that would be a tragedy, certainly to those 900 people. I really think it is unnecessary for that to happen. We will do our best on this end to get that compact approved.

Senator McClure.

Senator MCCLURE. Mr. Chairman, I just want to underscore that sometimes we found that cost overruns or the financial crisis before the end of the fiscal year are the result of mismanagement or the failure of competent management in the governments. In this instance I think it is very, very clear that the reason for the shortfall of money is the anticipation on the part of everyone that the compact would be in effect during this year. It is not the fault of the Palau Government.

## FISCAL YEAR 1988 FUNDING CRISIS

I just want to underscore that I am sorry you are caught in this dilemma. I am not certain that I know what the answer is. Because of the flow of legislation in the Congress of the United States, there is only one apparent immediate solution to the problem, and that is ratification of the compact so that you could immediately move into that regime.

It is not the fault of the Government of Palau that you are caught in this problem. I do hope it will be resolved. I hope it will be resolved by action in the other body. If the other body refuses, we have a tremendous dilemma. I don't know how we answer that question.

Senator JOHNSTON. You know, Senator McClure, under the way the Appropriations Committee works we get an allocation of money for this subcommittee under what we call the 302(b) allocation. That should be coming through here within the next couple of weeks. So we will be fixed then on this subcommittee a couple of weeks from now as to how much we can give.

We certainly owe it to you. What you say in your statement is exactly correct. We have the obligation so long as the compact is not approved to come to your aid, and if we have to use up our 302(b) allocation for you, there is just going to be less money to go around elsewhere.

Senator McClure. That is not fair to everyone else.

Senator Johnston. I didn't ask that question because I didn't want to sound as if it is some kind of threat. It is fact. The 302(b) allocation will be coming through first and the dollars are fixed. Then where do we get the money? I don't know. I certainly hope we can urge the House to act on the Palau compact soon.

Senator McClure. Mr. Chairman, that is why I referred to it as a dilemma. I am not clear in my own mind as to what options we have or what solutions we will be able to find.

We owe you a solution and we are going to try to find it. The easiest and best solution is obviously the one that we have been urging, and that is the approval of the compact. I know that is what you people want; that is what this committee wants. It is the only one that I can see is sure to be able to meet the needs of the people of Palau in time to avoid that crisis point in July. I don't see any other obvious available solution that doesn't cause us great problems as well. So I do hope we can find that solution.

Certainly I pledge to you my support in finding a solution in the event that the compact will not be approved by the House in their ratification process.

I just want you to understand that there is good faith here. We are going to do the very best we can and we hope it solves it in a way that doesn't cause you any more pain, and you certainly don't deserve any more difficulty at our hands.

Mr. Willter. Thank you, sir. My statement may sound like we are bringing the problems to you. You are very helpful to us and have been very helpful. But we do need some help, and I really appreciate your concern.

Senator Johnston. Thank you very much, Mr. Willter.

# DEPARTMENT OF THE INTERIOR

## OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS

## STATEMENT OF MARK S. HAYWARD, DEPUTY ASSISTANT SECRETARY

**ACCOMPANIED BY:**
**DAVID HEGGESTAD, BUDGET OFFICER**
**NANCY BOONE, TERRITORIAL LIAISON CHIEF**

### INTRODUCTION OF ASSOCIATES

Senator JOHNSTON. Our final witness of the day will be Mark S. Hayward, deputy assistant secretary for Territorial and International Affairs.

Welcome to the committee, Mr. Secretary.

Mr. HAYWARD. Thank you, Mr. Chairman. I fully appreciate all the comments that have been made. Senator McClure, it is always good to see you.

Senator MCCLURE. Thank you.

Mr. HAYWARD. Before I start, Senator, I think it is incumbent upon me to say that we have had an excellent working relationship with members of your staff, Laura Hudson, Al Stayman, Jeff Cilek, as well as Jim Beirne and Frank Cushing.

I would like to congratulate you for stealing away Sue Masica from the Department of the Interior. We certainly appreciated her efforts on behalf of the administration and we look forward to a good working relationship with her.

Mr. Chairman, I would also like to introduce some people that I have brought with me. To my left is Mr. David Heggestad, who is my Budget Officer; to the right is Ms. Nancy Boone, the Director of Territorial Liaison. In addition, we also have the field representatives from some of the U.S. territories.

### BUDGET OVERVIEW

Mr. Chairman, we are proposing a total budget of $323.4 million, a decrease of $191.5 million from fiscal year 1988. Of the total, $109 million is new budget authority. The balance of $214.2 million represents permanent and indefinite appropriations.

Much of the decrease in fiscal year 1989 is due to an assumption that the Compact of Free Association for the Republic of Palau will enter into effect during fiscal year 1988.

We certainly appreciate the comments by both of you gentlemen as well as other members of the Senate as it concerns the Republic of

Palau and we agree that compact implementation certainly will serve the best purposes of all.

### ADMINISTRATION OF TERRITORIES

Financial assistance for the U.S. territories is provided through the administration of territories appropriation.

The proposed fiscal year 1989 budget for the administration of the territories is $71.5 million, a decrease of $6.8 million from fiscal year 1988 appropriation.

### GUAM ASSISTANCE

Under the administration of territories account we are requesting $1.7 million for capital improvements in Guam. This funding will complete the expansion of the Ordot landfill, which is vital to Guam's environment and future economic growth.

We are also requesting $1.5 million for the Guam Power Authority loan assistance. In this regard, we are pleased to see the recent action that was taken by the Guam legislature to repeal the earlier legislation that had placed the loan in technical default by intruding on the independence of the public utilities commission, and we certainly appreciate the support that we have received from this committee on that issue.

### AMERICAN SAMOA ASSISTANCE

For American Samoa, we are requesting $21.8 million. This includes $20.8 million for operational support, which is consistent with the previous 2 years.

In addition, we are requesting $1 million in capital grants for American Samoa for water improvements.

### VIRGIN ISLANDS ASSISTANCE

For the U.S. Virgin Island, we are proposing $1.1 million for the repair and renovation of the water systems on both St. Thomas and St. Croix.

### NORTHERN MARIANA ISLANDS ASSISTANCE

The proposed funding of $40.2 million for the CNMI is in accordance with the negotiated schedule of payments that was enacted by Congress under Public Law 99–396. Under the agreement the department has agreed thus far to a conditional release of $44 million for specific capital improvement projects. In March the commonwealth hired a contractor to complete the 7-year CIP plan, and we have been very pleased with the efforts that they have made to date. We are anxious to review this plan and will provide copies to the committee along with our comments when the plan is available.

### TECHNICAL ASSISTANCE FUNDING

For technical assistance, Mr. Chairman, we are requesting $2.2 million. This has been a tremendously successful program. We initially concentrated on the installation of financial management systems, but we are now focusing on the economic development projects, revenue enhancement and public safety.

### OTIA SALARIES AND EXPENSES

For OTIA, we are requesting a base budget of $3 million for salaries and expenses. We have maintained a consistent staffing level for the past 5 years. Increased costs during the period have been associated with the staffing and maintenance of field offices in each of the U.S. territories and also Federal pay raises.

### TRUST TERRITORY OF THE PACIFIC ISLANDS

Our budget request for the trust territory appropriation is $2.8 million. This will fund a negotiated settlement for land use claims filed by landowners in the former trust territory. No funds have been requested for the government operations or the capital improvement program for the trust territories.

Our proposed trust territory budget for fiscal year 1989 is predicated on the assumption that the compact for the Republic of Palau will be put into effect during fiscal year 1988. As you are aware, the compact implementation for Palau requires a congressional resolution. Thus far only the Senate has taken action to implement the compact. We hope the Palau compact can be implemented on a timely basis. We believe, as does the Republic of Palau, that compact implementation is the most viable solution to Palau's current financial and political problems.

### COMPACT OF FREE ASSOCIATION

Regarding the Compact of Free Association, the proposed fiscal year 1989 budget for this account includes third-year compact funding for the Federated States of Micronesia and the Republic of the Marshall Islands and second-year funding for the Republic of Palau. The total in fiscal year 1989 is $179.1 million. Of this total, $144.2 million is permanent and indefinite authority which was appropriated in fiscal year 1986.

The new budget authority that we are requesting is $34.9 million, which includes $27.2 million for the Federated States of Micronesia and the Marshall Islands and $7.7 million for the Republic of Palau.

These funds will be used to pay for a variety of Federal programs and services that were extended and guaranteed to the freely associated states.

### PREPARED STATEMENT

Mr. Chairman, I appreciate the opportunity to appear before this committee and I will be more than happy to answer any questions that you may have.

[The statement follows:]

## STATEMENT OF MARK S. HAYWARD

Mr. Chairman and Members of the Subcommittee. I am very pleased to be here today to discuss the President's fiscal year 1989 budget for Territorial and International Affairs.

### Budget Overview

For fiscal year 1989, we are proposing a total budget of $323.4 million, a decrease of $191.5 million from the estimated fiscal year 1988 level. Of the total, $109.2 million is new budget authority. The balance of $214.2 million represents permanent and indefinite appropriations for the Compacts of Free Association and tax coverovers to Guam and the U.S. Virgin Islands.

Much of the decrease in fiscal year 1989 is due to an assumption that the Compact of Free Association for the Republic of Palau will enter into effect during fiscal year 1988. First-year funding for the Palau Compact is significantly higher due to large initial payments for an investment account, for capital expenditures, and for a major obligation to build a road system. These three items total $129 million plus adjustments for inflation. If the Palau Compacts cannot be implemented until fiscal year 1989, the budget and outlay estimates for 1989 will have to be increased significantly. Of course, fiscal year 1988 estimates would be adjusted downward.

### Administration of Territories

Financial assistance for the U.S. territories is provided through the Administration of Territories appropriation. This appropriation also includes salaries and expenses for the Office of Territorial and International Affairs and funding for the Technical Assistance Program.

The proposed fiscal year 1989 budget for the Administration of Territories is $71.5 million, a decrease of $6.8 million from the fiscal year 1988 appropriation. The proposed budget will meet all statutory requirements and provides a limited amount of discretionary funding to assist in critical infrastructure development in the U.S. territories, technical assistance, and operational support for the American Samoa Government.

### Guam Assistance

We are requesting $1.7 million for capital improvements in Guam. This funding will complete the expansion of the Ordot landfill, which is vital to Guam's environment and future economic growth. The existing facility is inadequate and hazardous, particularly for the water supply. Thus far, there has been no seepage of hazardous waste into the northern lens, the primary source of drinking water. However, the potential exists and pollution of recreational water has already occurred.

We are also requesting $1.5 million for Guam Power Authority loan assistance. This amount is based on a payment schedule with the Federal Financing Bank and represents the subsidized portion of the interest on the guaranteed $36 million loan made to the Authority. We are very pleased with the recent action taken by the Guam legislature to repeal earlier legislation that had placed the loan in technical default by intruding on the independence of the public utility commission.

### American Samoa Assistance

For American Samoa, we are requesting $21.8 million. This includes $20.8 million in operational support, a funding level that is consistent with that provided for the past two years. We are pleased that American Samoa ended fiscal year 1987 in relatively good financial condition compared to rather dire mid-year projections. We hope that the Governor's 1987 cost-cutting and revenue enhancement measures can be institutionalized and maintained in future years. This is critical to the future financial health of American Samoa and we will continue to offer technical assistance to help in this endeavor.

We are proposing $1 million in capital grants for American Samoa to improve the water system. The requested funding will help extend service to western villages and improve water pressure and service throughout the system.

### Virgin Islands Assistance

We are proposing $1.1 million for capital improvements in the Virgin Islands. The funding would be used for repair and renovation of the water systems on both St. Thomas and St. Croix. Water losses will be reduced and the overall efficiency of the systems will be improved as a result. We also want to inform the Subcommittee that we are involved in discussions with the government of the Virgin Islands to arrange for the use of up to $70 million in loan guarantee authority that remains available. The Virgin Islands government is preparing a detailed plan for the use of the funds that will emphasize improving power generation and water supply, primarily on St. Croix.

### Northern Mariana Islands Assistance

Fiscal year 1989 is the fourth year of the multi-year "Agreement of the Special Representative on Future United States Financial Assistance for the Northern Mariana Islands. The proposed funding of $40.2 million is in accordance with the negotiated schedule of payments that was enacted by the Congress in Public Law 99-396. Under the terms of the Agreement, the Department has agreed thus far to the conditional release of $44 million for specified capital development projects. Procurement of $19.6 million worth of these projects is now in progress.

In March, the Commonwealth hired a contractor to complete a plan that will describe the use of the full $126 million of capital funds to be provided over the seven-year period of the Agreement. We are anxious to review this plan and will provide copies to the Committee, along with our comments, when it is available.

### Technical Assistance Funding

We are requesting $2.2 million in technical assistance funding. This program has been very successful in meeting a variety of needs for the insular areas. The program initially concentrated heavily on installation of financial systems in all of the insular areas to improve management and the control and accountability of funds. Work is continuing in that area, but the focus of the program is shifting to economic development projects, revenue enhancement and public safety. The technical assistance needs of the insular areas are numerous, but we have tried throughout the history of the program to be responsive to the highest priorities of the governments.

### OTIA Salaries and Expenses

We are requesting a base budget of $3 million for salaries and expenses of the Office of Territorial and International Affairs. We have maintained a constant staffing level for the past five years. Most of the increased costs during that period have been associated with the staffing and maintenance of field offices in each of the U.S. territories, as well as covering the costs of Federal pay raises. We consider our field representatives extremely important to the effectiveness of our operations and are pleased with the calibre of personnel that have been placed in those positions.

### Trust Territory of the Pacific Islands

Our budget request for the Trust Territory appropriation is $2.8 million. This will fund a negotiated settlement for land use claims filed by landowners in the former Trust Territory. No funds are requested for government operations or the capital improvement program. The Federated States of Micronesia and the Republic of the Marshall Islands have been receiving Compact funding since their respective Compacts of Free Association were implemented in 1987.

Our proposed Trust Territory budget for fiscal year 1989 is predicated on an assumption that the Compact with the Republic of Palau will be put into effect during fiscal year 1988. As you are aware, Compact implementation for Palau requires a Congressional resolution. Thus far, only the Senate has taken action to implement the Compact. Should the House not take similar action during this Congress, the budget for fiscal year 1989 will have to be amended, possibly to include restoration of operations funds under the Trust Territory appropriation. At the very least, fiscal year 1989 would become the first year of Compact funding and the estimates would have to be adjusted accordingly. We sincerely hope such a major adjustment is not necessary and the Palau Compact can be implemented on a timely basis. We sincerely believe, as does the Republic of Palau, that Compact implementation is the most viable solution to Palau's current financial and political problems.

### Compact of Free Association

The proposed fiscal year 1989 budget for this account includes third-year Compact funding for the Federated States of Micronesia and the Republic of the Marshall Islands and second-year Compact funding for the Republic of Palau. Total funding in fiscal year 1989 is $179.1 million. Of this total, $144.2 million is permanent-indefinite authority that was appropriated in fiscal year 1986. This represents the portion of the Compact funding that is secured with a pledge of the full faith and credit of the United States.

The new budget authority that we are requesting is $34.9 million. This includes $27.2 million for the Federated States of Micronesia and the Republic of the Marshall Islands and $7.7 million for the Republic of Palau.

These funds will be used to pay for a variety of Federal programs and services that were extended and guaranteed to the freely associated states. This includes services provided by the U.S. Postal Service, the National Weather Service, the Federal Aviation Administration and the Federal Emergency Management Agency. It also includes financial assistance for post-secondary education of Micronesian students who were enrolled at the time of Compact implementation.

The budget request also will fund direct assistance to the government in the form of block grants for health and education; and special grants for maritime surveillance and enforcement, medical referrals, energy production, communications, and annual audits.

The first two-years of the Compact for the Federated States of Micronesia and the Marshall Islands have not been without problems, but both the United States and the freely associated states have generally approached problem-solving in a spirit of cooperation and understanding. Given the complexity of several of the issues, the transition has been smooth. We hope that the Republic of Palau can enjoy the benefits of the experience we have gained, and that the free association relationship will be implemented for Palau in the very near future.

Thank you once again for this opportunity to present our budget. My staff and I are willing to respond to any questions you may have.

PALAU FUNDING

Senator JOHNSTON. Thank you very much, Mr. Hayward.

I would like to begin with a discussion about Palau. For 2 years we have gotten into serious trouble anticipating enactment of the compact with Palau. Wouldn't we further complicate these difficulties by authorizing an advance of compact funds as the secretary has recommended?

Mr. HAYWARD. Mr. Chairman, we understand the difficulties in getting legislation through the Congress at this late date. We fully believe that the best solution for the Republic of Palau is the implementation of the Compact of Free Association.

Until such time, we have provided a drafting service for the House and would be happy to provide that to your staff as well, which would allow the secretary to advance up to $3.5 million from compact first-year funds.

We fully appreciate the situation which currently exists in the Republic of Palau.

Senator MCCLURE. Could I ask a question in that regard?

Senator JOHNSTON. Sure.

Senator MCCLURE. I am not quite certain I understand exactly how that would work. The compact will have an effective date when ratified. You borrowed ahead against that date without any revision of the initial funding. Doesn't that short the first-year funding?

Mr. HAYWARD. That would essentially short the first-year funding by the amount which was advanced by the secretary.

Senator MCCLURE. That may get us by a tough point right now, but we are only borrowing against the future. Isn't that fair to say?

Mr. HAYWARD. There are amounts above the currently appropriated amount since Palau is in the trust territory. We believe that there would be sufficient money.

Senator MCCLURE. Out of the trust territory moneys?

Mr. HAYWARD. No, sir; in other words, the first year Compact of Free Association provides for $18 million in the operational account, whereas in fiscal year 1988 $11.5 million was provided.

Senator MCCLURE. I understand that. But there won't be $18 million for the first year of operation under the compact if funding is advanced.

Mr. HAYWARD. That is correct, sir.

Senator MCCLURE. Who is kidding who? I just don't understand how you get there. If you take the money out of that pot, then the money isn't in that pot when you get around to the first year of administration.

Mr. HAYWARD. That is why the administration believes enactment of the Compact of Free Association will serve all purposes.

Senator JOHNSTON. What is the amount of the estimated shortfall in Palau and when will it come due?

Mr. HAYWARD. They range, Mr. Chairman, between $3.5 million and $4.6 million. We believe that $3.5 million will be sufficient to get Palau through the end of the fiscal year.

What we have done, Mr. Chairman, over the last 4 months, beginning in April, is to advance to Palau $1.1 million per month, which essentially covers the payrolls of the Republic of Palau, which is approximately $550,000 per payroll biweekly.

### RMI SUICIDE PREVENTION PROPOSAL

Senator JOHNSTON. There are two grant proposals presently pending before you. One is with respect to the Marshall Islands for a consultant for suicide prevention. As I am sure you are aware, they have got one of the highest suicide rates in the country for young men. Can you comment on that?

Mr. HAYWARD. We received the request from the Marshall Islands on March 22 for suicide abuse. The request was for $5,700. We are looking at the request and will be responding back to the Marshall Islands shortly.

There are a tremendous amount of requests that are made by the island governments for technical assistance. We do evaluate each of them and we attempt to fund the top priorities.

This year, for the Marshall Islands, Mr. Chairman, we have more than doubled the amount of money for technical assistance than we had given in the previous fiscal years. But we are looking at those at this present moment.

### RMI EDUCATION SURVEY PROPOSAL

Senator JOHNSTON. I hope you can look favorably upon that one, and also on the Marshalls' request for funds for a survey on educational needs. As you know, more than one-half of the population there is under age 16. It is a very high priority. I am not sure that building the university is the right way, but at least we ought to have advice on that, and I hope that you can give us that.

Mr. HAYWARD. On that, Mr. Chairman, I would like to point out that the Department of Education has now formed an Office of Territorial and International Affairs, which we think has a very nice ring to it. They will be looking to identify funds within the Department of Education that could be used in the freely associated states. We have just recently met with the new office director and we will be working closely with them.

They have informed us that one of the problems that they have had is that because of their travel budgets being restricted they are unable to go to the freely associated states as well as the U.S. territories. We said, on the program side, that we felt that they should come up with the necessary funds to fund individuals programs and we would be happy to fund travel for Department of Education personnel to go out to the freely associated states.

Senator JOHNSTON. Can they make the survey? There is an application now for a survey.

Mr. HAYWARD. We are consulting with them to see whether or not they can identify the personnel to make that survey.

Senator JOHNSTON. I hope we can do that before we spend a lot of money improvidently on needs that might not be high priority after the survey.

Mr. HAYWARD. Yes, sir.

### BIKINI TRUST FUND PROPOSAL

Senator JOHNSTON. On Bikini, I think you heard our discussion about the idea of a trust fund, in lieu of litigation, to be run by the Bikinians themselves. Have you a view on that?

Mr. HAYWARD. We have heard the concept, Mr. Chairman. We have not taken a position, but certainly it is an alternative that should be explored.

Senator JOHNSTON. I hope you will, because until we finally settle that, it is interminable litigation; it is sort of like the case of *Jardice* v. *Jardice*, if you are familiar with that in the legal annals. It just goes on forever, and nobody profits, it seems, except for lawyers. We ought to really get that fund created if it is suitable to them and let them manage it themselves. Maybe the idea of scraping will be more or less attractive when they realize it is their money in effect that they are administering.

So I hope you will look into that and explore that with them as to an amount so that we can get started on it. Whatever the amount is, we wouldn't be able to fund it all in 1 year, but once we know what the liquidated amount is, we can form our plans and fund the trust fund. So I hope you will pursue that.

Mr. HAYWARD. We will be more than happy to, Mr. Chairman. Not being a lawyer myself, I couldn't agree with you more that more money should go into the pockets of individuals and not into that of the legal profession.

Senator JOHNSTON. Senator McClure?

Senator McClure is a lawyer. [Laughter.]

Senator MCCLURE. I used to get paid fees.

[The information follows:]

The Bikini trust fund issue is still under review within the Department. The committee will be informed when an official administration position on the proposed lump sum payment to the Bikinians has been determined.

### PALAU FUNDING CONCERNS

Senator MCCLURE. I don't mean to belabor this subject, but I am really concerned about what happens if the compact for Palau is not approved. You suggested we look to some of the first-year compact funds to fund the balance of 1988. There are some mechanical problems as well as technical problems. The mechanical problem being, OK, that gets us to October 1. What happens on October 2? Congress is planning to adjourn along about that time for the year, this being an election year. We will be out of town, hopefully. I trust you hope we will be too.

You don't have to comment on that. [Laughter.]

But if we are out of town, then we are going into fiscal year 1989 with no money, no budget request, no allocation in the appropriation process, no appropriation bill. And we will be out of town until some time next year, hopefully.

There will be a new administration. While I have my own ideas of who that may be, I don't know who the personnel will be. It will take a while for a new administration to get in place, to respond to problems, to get officials qualified, sworn in and functioning. Some time along about the end of February or into March we may be in a position to receive a recommendation from an administration that is in a position to make one.

Then some time following that we might be able to act, assuming we had a budget allocation that would permit it.

So you have got some time from the first of October until some time months and months and months later in which the people of Palau are just out there.

I don't think that is a solution. Let alone the question of what it does to first-year funding under the compact if and when we get to that. We will only be doing that if we don't have the compact approved. Then some time later on we will get the compact approved, hopefully, and then we have got a shortfall in the first-year funding for the compact. Again, with a budgetary process that is already fixed. It is fixed now. We will have the allocations in a few weeks; we will take appropriation actions in the next couple of months; and we will be trying to respond next year with no budgetary room to respond.

I guess that is by way of saying we are sure betting a lot on the good sense and good faith of the House of Representatives in approving the compact. Indeed, I hope that is the result.

I don't know that you have a comment or a solution. I only go through this because officially and emotionally and substantively we want the compact approved and we are not really ready to look at the alternatives, and certainly I agree with that. But I do think we have a severe problem and somebody had better be thinking about how we meet it.

Mr. HAYWARD. Senator McClure, I fully appreciate your comments. In fact, I did highlight it in my statement although I did not verbally in my oral statement talk about the problems that could occur if there was not compact implementation. We certainly recognize that. This was the same situation we had with fiscal year 1988. We did work with staff and there was an accommodation made for the trust territory government in that particular year. I am fully cognizant of what the definition of limbo is.

Senator MCCLURE. Yes; we did indeed accommodate, but it wasn't without pain and without price and it was not without response, including some violence in Palau. I hope we are not willing to go through that again. I hope we are not making that as a plan. I think the people of Palau deserve better than that from us, and I certainly hope we don't have to go through what we went through last year only worse this time.

Mr. HAYWARD. The administration certainly is prepared to sit and to work out any resolution. Again, not to be redundant, but we certainly would hope that the compact is implemented.

### TRUST TERRITORY GOVERNMENT DEFICIT

Senator McCLURE. Mr. Chairman, I have a number of specific questions with respect to specific areas and programs, but there is one I would like to explore today, and that the trust territory government deficit.

For this fiscal year we appropriated $8.5 million to begin repaying the trust territory government deficit. That deficit has accumulated over the years for a whole lot of different reasons, poor administrative practices, unbudgeted cost overruns. You know that litany as well as I do.

The trust territory was able to operate with those deficits annually because we had ongoing multiyear appropriations and a normal lag in the construction process. We are always able to borrow ahead against next year, but when we get to the end of the trust territory government we don't have a next year to borrow ahead against. So we started appropriating the money to pay that accumulated deficit off.

You have not requested any additional funds in fiscal year 1989 to pay any of the remaining deficit. Am I correct?

Mr. HAYWARD. That's correct.

Senator McCLURE. You estimate that the fiscal year 1988 funds will cover all prior year construction funds that come due through fiscal year 1989. Am I correct?

Mr. HAYWARD. That is correct.

Senator McCLURE. How sure are you that these funds will cover fiscal year 1989?

Mr. HAYWARD. We feel that based upon the allocations and the drawdowns and the projects that are existing, of which there are approximately $40 million of capital improvements projects, that it should give us around a $6 million cushion.

Senator McCLURE. Should I assume that you will request the necessary funds to pay off the remainder of the deficit in future years?

Mr. HAYWARD. We will certainly consider that within the preparation of the President's 1990 budget.

Senator McCLURE. That really wasn't my question. [Laughter.]

Mr. HAYWARD. I appreciate that.

Senator McCLURE. Well, what is your answer?

Mr. HAYWARD. I think for the better part of discretion, Senator, unfortunately I think that is the best answer I can give at this point in time.

Senator McCLURE. That is unfortunate. Because there is a commitment out there; there is an obligation out there; we can't duck it. I wish you were in a position to give an answer to that question. I can appreciate the fact that perhaps you are not.

What was your request to OMB for fiscal year 1989 for this item?

Mr. HAYWARD. It was $18 million.

Senator McCLURE. When the $8.5 million was provided it was based on an assumption that the total requirement to pay off the deficit would be $13.5 million. Your 1989 justification indicates that the estimate has risen to $18 million.

Mr. HAYWARD. That's correct.

### TRUST TERRITORY DEFICIT FLUCTUATION

Senator McCLURE. Why has the estimate risen?

Mr. HAYWARD. Mr. Heggestad, who is the budget officer, knows the ins and outs of what is happening with the trust territory deficit. In order to get me off the hot seat, I think I am going to pass the question to him.

Mr. HEGGESTAD. I don't have a simple answer, Senator. We have had our auditors looking at this each year in trying to come up with the best estimate. Part of it is the nature of government accounting systems that operate on an obligational basis. When final bills come in, sometimes they don't total up to the amount of the obligation. So the deficit has varied at different times. Right now the estimate is about $15.5 million total.

Senator McCLURE. I am a little perplexed by an auditing procedure that doesn't know what the costs are.

Mr. HEGGESTAD. We have outstanding contracts. We have some projects that are not yet under contract. We can only estimate that they are going to cost the amount of the funds we have available. That is not always the case. We have about $2.5 million right now in excess funds reserved from projects that cost less than the appropriated amounts. That is available for things like repairing and fixing up some of these projects that are underfunded.

Senator McCLURE. How confident are you that the $18 million estimate is the final estimate?

Mr. HEGGESTAD. I am more than confident that $18 million is a topside estimate. I think it will eventually be less than that. I don't think we will know for sure until almost the last dollar is paid.

Senator McCLURE. Just judging from your appearance, you are young enough to be around here when we find out whether that is true.

Mr. HEGGESTAD. I intend to be.

Senator McCLURE. And I intend to be here to ask you. [Laughter.]

Mr. HEGGESTAD. I am not bringing up other contingencies, though. [Laughter.]

We won't talk about lawsuits.

Senator McCLURE. Thank you very much. I understand that and I am concerned about it, because we have not done what was right with respect to those capital accounts and we have to be prepared to close them out correctly. I hope the administration really is in a position to tell us what they are going to do, not simply consider it, as I know you must answer today. Sometimes I get frustrated by that process. I know you do too, and I notice from your answer that you requested enough money to take care of that if we are not allocated that.

Mr. HAYWARD. Yes, sir.

Senator McCLURE. Thank you.

Thank you, Mr. Chairman.

### CLOSE UP PROGRAM

Senator JOHNSTON. Thank you, Senator McClure.

How many students participated in the Close Up Program during the current fiscal year?

Mr. HAYWARD. Are you talking about the Close Up Program that is being funded under the fiscal year 1988?

Senator JOHNSTON. Yes.

Mr. HAYWARD. It is approximately 200 students that will participate.

Senator JOHNSTON. What has been the reaction?

Mr. HAYWARD. There has been an excellent reaction from the territories themselves for the Close Up Program.

Senator JOHNSTON. What is the status of the application for funds?

Mr. HAYWARD. My understanding is that if it has not been signed it is certainly close to signature or things are proceeding accordingly, Senator.

### POSSIBLE REPROGRAMMING TO COVER PALAU SHORTFALL

Senator JOHNSTON. Could the department reprogram funds to cover Palau's anticipated shortfall?

Mr. HAYWARD. That certainly is one of the options that would have to be considered at some point in time.

Senator JOHNSTON. If so, what funds would you propose to reprogram?

Mr. HAYWARD. We have been discussing this.

Senator McCLURE. You won't make it to the door if you answer that question. [Laughter.]

Mr. HAYWARD. Certainly the trust territory deficit is a viable alternative, and we all know the complications that are created when we look to that particular account. There may be some other alternatives. We have discussed it internally but we have not proceeded on that. My discussion with the Secretary is for us to proceed on the loan in the form of an advance from compact funds, and that is what we have done, but we certainly are looking at other areas.

Senator JOHNSTON. Senator McClure says to just turn around and ask if anybody is willing to share. [Laughter.]

### ADDITIONAL COMMITTEE QUESTIONS

Thank you very much, Mr. Secretary. We appreciate your testimony. We will be submitting additional committee questions.

Mr. HAYWARD. Thank you, Mr. Chairman. I appreciate appearing.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### Office of Territorial and International Affairs

### Palau

Question: What action is the Department taking with respect to the anticipated funding shortfall in Palau?

Answer: The Department is proposing to reprogram $3.5 million from funds appropriated to reduce the accumulated deficit of the Trust Territory to the Palau operations account. The reprogramming should help Palau meet its financial needs for the remainder of fiscal year 1988.

Questions: Given that the House Interior and Insular Affairs Committee's position on the Compact makes implementation unlikely, what would you recommend regarding Fiscal Year 1989 appropriations for Palau operations?

Answer: We would recommend an appropriation for Palau operations in the Trust Territory account, which would be offset against Compact funding when the Compact is implemented.

Questions: What would happen in October if we didn't provide FY 1989 operations funds and the Compact were not implemented in this session of Congress?

Answer: If the Federal government was operating under a Continuing Resolution, there would still be funds available under the Trust Territory appropriation. Otherwise, we would have no funding for basic government operational support to Palau and would have to seek other alternatives to keep the government operating.

Question: Can we expect the Administration to submit a budget amendment if that appears likely?

Answer: The Administration still strongly endorses Compact implementation prior to October 1, 1988 as the preferable alternative. However, if that is not possible, we can support a budget amendment if it does not have a negative effect on the Federal deficit. A Trust Territory appropriation that provides for eventual offset against Compact funds would be an example of an acceptable amendment.

### Bikini

Question: Congress has provided the people of Bikini with $75 million under the Compact as compensation for their exile, and to satisfy nuclear claims. In addition, Congress provided $20.6 million to cover their resettlement in other areas while awaiting the rehabilitation of their homeland.

Recently, the Administration stated that it shared my view "... that the United States has an unfilled moral and legal obligation to the people of Bikini with respect to resettlement of Bikini." I understand litigation is pending with respect to this obligation.

One approach for meeting our obligations is to set up a trust fund for rehabilitation and resettlement of Bikini. In return, the Bikinians would waive their rights to further litigation of issues. This way we could stop the annual appropriations battle. Also, the Bikinians can make their own choices and be responsible for administering "their" plan, instead the U.S. doing it. Isn't this the best approach for fulfilling our obligations to the Bikinians?

Answer: We are in agreement in principle with the proposal to address the Bikini resettlement funding issue with a trust fund. In recent months, discussions on such a proposal have been held between the Attorney for the Bikini Council and the attorneys responsible for representing the United States. At this time, however, no agreement has been reached on the method or amount of funding.

Question: The main issue would be the amount of the trust fund. What is the Administration's estimate of the cost, or the range of costs, for both rehabilitation and resettlement?

Answer: The following projection is based on a review of the preliminary information provided to date by Holmes & Narvar, the Bikini Atoll Rehabilitation Committee and the recommendations of the Bikini Council.

As you know, the final Report from the Bikini Atoll Rehabilitation Committee is to completed by August 1, 1988. Detailed engineering and cost figures are in preparation by Holmes & Narvar at this time. A 50-percent report briefing is to be provided to DOI in Albuquerque on June 6, 1988.

Therefore, the following projections represent only the best estimate based on the information available at this time and may be subject to further revision based on the final Report of BARC and the detailed engineering and cost estimate being prepared by Holmes & Narvar.

RESETTLEMENT COST ESTIMATES

| | H&N Estimate | DOI Reductions | |
|---|---|---|---|
| Perimeter Road System - Eneu | $ 1,317,000 ) | $ 1,985,000 | 1/ |
| Road System - Bikini | 1,400,000 ) | | |
| Eneu Dock & Small Boat Harbor | 2,886,000 | | |
| Bikini Dock & Harbor | 3,240,000 | | |
| Airport Rehab. & Extension | 4,135,000 | 538,000 | 2/ |
| Runway Catchment | 1,487,000 | | |
| Water Collection System | 662,000 | | |
| Desalinization Plant | 130,000 | 130,000 | |
| Fresh Water Collection and Distribution System | 352,000 | | |
| Well/Pump Station | 50,000 | | |
| Filtering & Treatment Plant | 184,600 | | |
| 300,000 gal. Treated Water Tank | 110,000 | | |
| 700,000 gal. Raw Water Tank | 249,000 | | |
| Bikini Waterline & Storage | 1,600,000 | 5/ | |
| Bikini Water Distribution System | 760,000 | 5/ | |
| Salt Water Distribution System | 367,800 | 367,800 | |
| Sanitary Sewage Line | 444,600 | | |
| Sanitary Landfill & Burn Area | 210,000 | | |
| Bikini Sanitary Landfill | 210,000 | | |
| Shoreline Protection | 544,000 | | |
| Power Distribution System | 1,543,000 | 500,000 | |
| Bikini Electric Power | 1,700,000 | 5/ | |
| Eneu Base Housing | 2,553,300 | 2,553,300 | 3/ |
| Eneu Service Area | 860,900 | | |
| Eneu Support Area | 611,900 | | |
| Power House Bunker Rehab | 64,000 | 4/ | |
| Timing Bunker | 146,000 | 4/ | |
| Communications Bldg. destruction | 110,000 | | |
| Assembly Bldg. destruction | 82,300 | | |
| Camp Blandy - preserve wall | 12,000 | 4/ | |
| Temporary Base Camp | 21,000 | + (816,000) | 3/ |
| Bikini Community Facilities | 4,000,000 | 5/ | |
| Bikini - 135 Houses w/sewage | 15,000,000 | 3,675,000 | 6/ |
| Eneu Indirect costs | 8,288,000) | ( | |
| Bikini Indirect costs | 10,199,092) | (2,295,555 | |
| Eneu Architecture/Engineering and Project Management | 2,268,190) | | |

| | H&N Estimate | DOI Reductions | |
|---|---|---|---|
| Bikini Architecture/Engineering and Project Management | ) 2,791,000) | 525,780 | 7/ |
| Mobilization & Support Transportation | 1,909,000 | 946,404 | |
| Shipping & Port Handling | 1,637,700 | | |
| Total Project Costs/ Reductions (1986 dollars)... | $ 74,138,782 | $ 12,700,839 | |
| CPI increase FY 1986-1989 (12%): | 8,896,654 | 7,372,553 | |
| | =========== | ========== | |
| Total Resettlement costs: | $ 83,035,436 | $ 68,810,496 | |

1/ Coral base road - no paving
2/ Eliminate 700-Foot extension
3/ Eliminate Base Housing/increase temporary camp rehab.
4/ Cost of destruction approximately same amount.
5/ Bikini Master Plan not Complete - Estimate only
6/ New projections by H & N lowers cost estimate
7/ Ten percent of direct costs

## REHABILITATION COST ESTIMATES

The cost of rehabilitation is estimated in the BARC No. 4 Report (dated March 31, 1986) to be:

| | |
|---|---|
| Excavation/disposal.................... | 96,000,000 |
| Seawater/Potassium/minor Excavation..... | 20,000,000 |

BARC's preliminary estimates have also been confirmed by the Holmes and Narvar studies.

It is anticipated that BARC will determine that federal standards can be met in 1990 by the seawater/potassium method of rehabilitation. Therefore, it is also anticipated that Department will recommend that funding be provided to utilize the Seawater/Potassium method.

Based on this assumption, the following are the total estimated costs of Rehabilitation and Resettlement:

| | |
|---|---|
| Bikini Resettlement Estimate........... | $ 61,437,943 |
| Bikini Rehabilitation Estimate.......... | 20,000,000 |
| Project cost estimate (1986 dollars).... | 81,437,943 |
| Inflation adjustment (FY86-89) 12%: | 9,772,553 |
| Total estimated cost of Rehabilitation/ Resettlement Project (1989 dollars)... | $ 91,210,496 |
| Less: Funding provided in FY 1982 Bikini Resettlement Trust Fund...... | 21,600,000 |
| Total additional funding required........ | $ 69,610,496 |
| | ============ |

## Territorial Staffing

Question: Did OTIA request Fiscal Year 1989 funding from OMB to station personnel in the freely associated states? If so, what was the request and how many personnel would be located in each state?

Answer: OTIA requested an additional $400,000 to locate one representative in each freely associated state.

Question: Would having OTIA personnel in the FAS enhance your ability to meet the Department's responsibilities under the Compact?

Answer: Stationing OTIA personnel in the freely associated states would be of limited benefit. The primary new responsibility of the Department under the Compact is monitoring Federal programs. To facilitate the delivery of Federal programs to the freely associated states, we have created a direct relationship between the governments and the Federal agencies. To the extent there are problems in delivery of programs, they can be better resolved in Washington or the regional offices. An OTIA employee in the freely associated states would have no easier access to officials in these cities than the freely associated states now have.

## Guam

Question: What is the Department's rough estimate of the funding needed to upgrade the Guam water system?

Answer: Guam has estimated and we concur, that total funding needed in the near future ranges between $50 million and $80 million.

Question: Is there funding available to meet this need?

Answer: There is no funding currently available, but there are sources of funding, including municipal bonds, other loans, and higher user fees.

Question: Would you be willing to work with Guam to develop a plan for meeting long-term water needs?

Answer: Yes, we are willing to work with Guam, both in identifying needs and in seeking sources of financing.

Question: Will the $5.6 million provided to Guam Memorial Hospital in Fiscal Year 1985 be sufficient to have the facility reaccredited? If not, why not? What would additional funds be used for?

Answer: Based on our discussions with Guam officials, the $5.6 million is sufficient to correct all of the deficiencies that led to the loss of accreditation. The additional funds requested by Guam would finance plans for additional improvements in delivery of health-care that go beyond the issue of reaccreditation.

## American Samoa

Question: Would you please comment on the fiscal accountability plan which the American Samoa Government was to develop in cooperation with your office. Has it been received yet? When can the Committee expect to receive the plan?

Answer: The American Samoa Government submitted a draft plan to the Department in April. We felt the plan did not fully address all the revenue or expenditure adjustments that were feasible in the short-term and also failed to include base-line figures and projections that could be used to judge the success of the plan. We explained our concerns to American Samoa officials and asked them to re-work the plan and submit a new plan on or about June 1.

Question: Does it provide for improvements in revenue collections and control of expenditures?

Answer: The plan provides for improvements in revenue collections and control of expenditures. However, there are new expenditure items such as a pay raise, debt service for the administration building bond issue, and tank farm rehabilitation that we are not certain have been adequately addressed.

Question: Would you please comment on the need for the Leone Harbor and for improvements to the Ta'u Harbor? Have the necessary permits been acquired for Leone Harbor?

Answer: We believe that American Samoa must expand development and commercial activity beyond the Pago Pago harbor area in the near future. Leone Bay presents such an opportunity. However, before we can support funding for this project, the American Samoa Government must resolve the environmental concerns associated with the project and look at alternative sources of financing. We have very little information on which to make judgements on the Ta'u Harbor project. There are obvious problems with the existing harbor facility on Ta'u. At some time, a new facility will be necessary. This project was not included in the budget priorities given to the Department by American Samoa.

## Micronesian War Claims

Question: Last year, Congress appropriated $12,350,000 as partial resolution of Title I war claims resulting from U.S. actions in the South Pacific during World War II. What is the current estimate of administrative costs necessary to pay all of the claims?

Answer: We have dedicated $100,000 to administer the $12,350,000 in payments that were appropriated in fiscal year 1988. We have also received commitments from the affected governments to assist in locating claimants, distributing checks and resolving questions and disputes.

Question: How was the estimate of administrative costs derived?

Answer: The estimate was derived by the Division of Fiscal Services in the Office of the Secretary, which is the responsible office for paying claims. It includes the cost of computer support, a full-time project coordinator, and mailing, distribution and printing costs.

Question: Where will these administrative costs be funded from?

Answer: The $100,000 was dedicated from funds appropriated in fiscal year 1988 for Trust Territory operations.

Question: Have any payments been made yet this year? If not, when do you expect the first payments to be made?

Answer: No payments have yet been made. We now expect the first payments to go out in August or September. There is a great deal of work that must be accomplished before a payment can be made, including locating and notifying the more than 15,000 payees, verifying identification, signing releases etc.

Question: Will all the payments be made at the same time?

Answer: No. We expect a large number of payments, possibly 60 to 80 percent of the total, to be paid very quickly; but because of deaths, relocations and other complications, the remaining payment could take years to process. For example, after a period of more than a decade, a small number of Title II claims are still unpaid.

Question: Will some beneficiaries be paid in full, or will each beneficiary receive a prorata share of the total appropriated in Fiscal Year 1988?

Answer: Each claimant will receive a prorata share of the total funds available.

## Disaster Contingency Fund

Question: Has TIA expended any of the $500,000 appropriated last year to establish a Disaster Contingency Fund? What plans does TIA have for these funds at the end of the current fiscal year?

Answer: No, we have not expended any of the $500,000. The funds remain available after the end of this fiscal year. They will be used in the event of a disaster to pay emergency costs that must be covered after the disaster occurs but prior to a Presidential declaration, when funds from the Federal Emergency Management Agency become available.

## Compact Implementation

Question: For Fiscal Year 1988, Congress approved appropriations language allowing the use of Compact funds for annual audits, as authorized in Section 103(m) of the Compact of Free Association, P.L. 99-239. Was an audit conducted for Fiscal Year 1987? Is so, have the results been reviewed? By Whom?

Answer: The fiscal year 1987 audits have not been completed. They are now in progress but were delayed in starting until the funding issue was resolved.

Question: If an audit has not yet been conducted for Fiscal Year 1987, when do you expect it to be completed?

Answer: We expect the audits to be available for initial review in July 1988.

## Deficit Elimination

Question: Why have no funds been requested when the Administration knows the deficit exists (est. $18 M -- P. 85-86)? The budget suggests that the funds appropriated in Fiscal Year 1988 ($8,500,000) will be sufficient to pay all of the prior year construction obligations that come due through Fiscal Year 1989. What will come due in Fiscal Year 1988? In Fiscal Year 1989?

Answer: We did not budget for the deficit in fiscal year 1989 because sufficient funds were available to avoid a funding shortfall. As of March 31, 1988, we had approximately $31 million in cash authority to pay approximately $45 million in construction obligations. The $31 million includes $5 million of the $8.5 million appropriated in fiscal year 1988 for deficit elimination and assumes that Congress will approve our proposed reprogramming of $3.5 million for Palau operations. We expect our available cash to decrease to approximately $23 million by the end of fiscal year 1988 and to approximately $3 million by the end of fiscal year 1989.

Question: When does TIA expect that the remainder of the construction obligations will come due?

Answer: By the end of fiscal year 1990, the capital improvement program should be virtually completed.

## Territorial Development

Question: The TIA budget (p.2) states that one of the Department's strategies for dealing with the territories and the freely associated states is to improve territorial government efficiency, and to promote greater fiscal responsibility and accountability within the local governments. Specifically, what is TIA doing with respect to these objectives in Palau? In American Samoa?

Answer: OTIA has committed several hundred thousand dollars to both Palau and American Samoa for installation of new financial management systems and user training. We will continue to provide technical assistance for additional training, financial advice and expertise, and system expansion and improvements. We have also provided assistance for development of procurement regulations and processes, personnel management, budget training and assistance, tax policy and administration and cash management.

## Construction Funding

Question: On what basis did TIA distribute the funds which comprise the Fiscal Year 1989 request for construction projects?

Answer: Funds for the Commonwealth of the Northern Mariana Islands were distributed on the basis of a multi-year negotiated agreement. Construction funds for the other U.S. territories were distributed on the basis of equitable treatment for each territory and our perception of the greatest needs, based on input from the territories.

Question: Was a priority list followed?

Answer: We ask the governments for their priorities and attempt to work within their top priorities.

Question: Were the governments consulted?

Answer: The governments make the initial input into the process. They are not consulted in the final decision as to what remains in the President's budget.

Question: How much did each of the governments request from the Department for construction?

Answer: The Government of Guam requested $69.8 million, the Government of American Samoa requested $9.3 million, the Virgin Islands requested $9.1 million, and the Commonwealth of the Northern Mariana Islands requested $25.15 million.

Question: For the record, how much did the Department request from OMB for construction?

Answer: The Department requested $2.7 million for Guam, $2.7 million for American Samoa, $3.1 million for the Virgin

Islands and $25.15 million for the CNMI (as provided for in the Special Representatives Agreement).

Question: In Fiscal Year 1988, TIA requested $1.5 million for initial work on construction of a seawall for American Samoa, which Congress approved. The FY 1988 budget justification (p. 25) estimated total costs for the seawall project to be $6.0 million. Yet, the Fiscal Year 1989 budget includes a funding request of $1.0 million for water system improvements (p. 32) and nothing for completion of the seawall construction. Why hasn't the Administration requested funds for completion of the seawall construction project?

Answer: The $1.5 million will pay for the major start-up costs of the program, including procurement of heavy equipment, and initial construction of high priority portions of the seawall. Continuation of the program is at the discretion of the American Samoa Government and should cost no more than $500,000 annually, since the equipment will already be available. In addition, certain portions of the seawall meet the criteria for Army Corps of Engineers funding.

Question: Does this lack of funding reflect a change in priorities for construction of American Samoa?

Answer: No, it does not. It was not the Department's intention to pay for the entire project from Interior appropriations.

Question: The FY 1989 budget (p. 6) indicates that additional authorization is required for Guam construction grants. Since the request for Guam construction is for the Ordot landfill, and this project was funded in Fiscal Year 1988, under what authority is activity being conducted at present?

Answer: The appropriation act (Public Law 100-202) became the authority when it was passed by Congress without any challenge or "point of order" being raised as to the lack of authorizing legislation.

Question: Why is the additional authorization necessary?

Answer: There is no existing authorization for additional funds, although the process could work similar to last year if there again is no "point of order" raised.

### Technical Assistance

Question: For the record, please provide the projects anticipated to be funded with the $5,240,000 appropriated for Technical Assistance in Fiscal Year 1988. Please list the FY 1988 obligations to date for technical assistance. On what projects does TIA plan to spend the $2,200,000 requested in Fiscal Year 1989?

Answer: The determination of projects is made on the basis of applications submitted by the governments. We will once again ask the governments to identify their technical assistance needs in fiscal year 1989. We view this as a discretionary program, so we do not predetermine projects to be funded.

With regard to fiscal year 1988, we anticipate funding the following additional projects:

| | |
|---|---|
| CNMI-Commonwealth Health Center Financial Management System | $160,000 |
| CNMI-Cultural Projects | 10,000 |
| Hepatitis B Program | 50,000 |
| FAS-Anti-drug program | 125,000 |

We are also reviewing a number of request recently received from the Federated States of Micronesia and the Republic of the Marshall Islands.

A list of technical assistance projects for each insular area totaling $4,631,608 funded in 1988 follows:

## MARSHALL ISLANDS TECHNICAL ASSISTANCE

FY 1988

| | |
|---|---|
| MAR-27-AN EVALUATION OF GOVERNMENT MANPOWER ALLOCATION AND TRAINING NEEDS | 50,000 |
| MAR-26-FIRE/BLDGS. CODE DEVELOPMENT | 7,000 |
| MAR-16-AMD.III-EBEYE CITY MANAGER | 25,000 |
| MAR-28-PRIVATIZATION PUBLIC WORKS | 100,000 |
| MAR-14,AMD.I-CIVIL AVIATION DIRECTORATE | 40,000 |
| MAR-29-INVESTMENT DEVELOPMENT FUND | 70,000 |
| MAR-30-EPA LAWYER | 20,000 |
| MAR-31-EPA WATER QUALITY EXPERT | 55,000 |
| MAR-32-SUBSTANCE ABUSE | 6,000 |
| MAR-24-MARICULTURE CONF. | 3,000 |
| | $376,000 |

## PALAU TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| PAL-19-PUBLIC SAFETY ADVISOR | 50,000 |
| PAL-15-PUBLIC SAFETY/DEA CONFERENCE | 4,600 |
| PAL-20-PRIVATIZATION CONFERENCE(L.A.) | 2,000 |
| PAL-21-TAX & REVENUE ADVISOR | 55,000 |
| PAL-22-FINANCIAL ADVISOR | 55,000 |
| PAL-23-EVAL. PROP. FOR FUND MANAGER | 30,000 |
| PAL-24-CASH MANAGEMENT PLAN SELECTION | 35,000 |
| PAL-25-REORGANIZATION | 60,000 |
| PAL-26-TOURISM VIDEO | 35,000 |
| PAL-27-HOSPITAL MANAGEMENT | 150,000 |
| | $476,600 |

## FSM TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| FSM-25,AMD.I.-FINANCIAL ADVISOR | $40,000 |
| FSM-35-NATIONAL HEALTH CARE PLAN | 75,000 |
| FSM-36-PRIVATIZATION CONFERENCE(L.A.) | 2,000 |
| FSM-37-FINANCIAL ADVISOR-TRUK | 40,000 |
| FSM-38-ECONOMIC DEV. NEWSLETTER-FAS | 50,000 |
| FSM-40-PRIVATIZATION GOVT. FUNCTION | 30,000 |
| FSM-41-FAX MACHINE | 2,500 |
| | $239,500 |

## CNMI TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| CNMI-31-VISITOR INDUSTRY PROGRAM | 50,000 |
| CNMI-29-TOURISM TRAINING ASSESSMENT | 20,000 |
| CNMI-30-FINANCIAL ADVISOR | 49,500 |
| CNMI-28-PUBLIC SAFETY/DEA CONFERENCE | 6,000 |
| CNMI-34-CNMI POWER SYSTEM REVIEW | 25,000 |
| CNMI-33-FINANCIAL MGMT. SYSTEM ASSISTANCE | 35,000 |
| CNMI-36-MANPOWER RESOURCES DEVELOPMENT | 25,000 |
| CNMI-35-FINANCIAL ADVISOR | 40,000 |
| CNMI-37-MASTER ELECTRICIAN | 50,000 |
| | $300,500 |

## AMERICAN SAMOA
## TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| AS-42,AMD.I-BUDGET ADVISOR | 60,000 |
| AS-48,AMD.I-CENSUS FOLLOWUP | 2,500 |
| AS-51-HEPATITIS FOLLOW-UP | 6,000 |
| AS-50-PUBLIC SAFETY/DEA CONFERENCE | 4,400 |
| AS-49-PORTRAIT OF AMERICA | 4,000 |
| AS-52-PRIVATIZATION CONFERENCE(L.A.) | 2,000 |
| AS-53-MUNICIPAL WASTE MGMT. PLAN | 30,000 |
| AS-54-WANG/DILOG TRAINING | 10,000 |
| AS-39,AMD.I-HOSPITAL ADMINISTRATION | 40,000 |
| AS-55-PENSION PLAN | 40,000 |
| AS-58-HEP B PROJECT MAINTENANCE | 30,000 |
| AS-59-HOSPITAL PLANT MANAGEMENT | 12,000 |
| AS-60-IMPROVEMENTS IN HOSPITAL FMS | 45,000 |
| AS-46-REVENUE ENHANCEMENT | 120,000 |
| | $405,900 |

## VIRGIN ISLANDS
## TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| VI-9-AMD.III-PUBLIC SAFETY TRAINING | 15,000 |
| VI-16-AMD.I-FINANCIAL MGMT. SYSTEM HARDWARE | 200,000 |
| VI-18-AMD.I-MANAGER-FIN.MGMT.SYSTEM | 12,800 |
| VI-22-PUBLIC SAFETY EQUIPMENT | 50,000 |
| VI-20-TOURISM CURRICULUM DEVELOPMENT | 35,000 |
| VI-23-PRIVATIZATION CONFERENCE | 2,000 |
| VI-24-ECC ADVISORY BOARD | 15,000 |
| VI-25-FORECASTING-ECONOMIC DEVELOPMENT | 25,000 |
| VI-26-VOCATIONAL EDUCATION | 50,000 |
| VI-21-PRIVATIZATION | 100,000 |
| VI-27-CHRISTIANSTED REDEVELOPMENT | 50,000 |
| | $554,800 |

## GUAM
## TECHNICAL ASSISTANCE

1988

| | |
|---|---|
| G-37-SHRIMP HATCHERY REHAB. | 155,000 |
| G-43-TAX DELINKAGE ASSISTANCE | 100,000 |
| G-41-PUBLIC SAFETY/DEA CONFERENCE | 4,000 |
| G-40-GUAM MEM.HOSP. FMS/MIS | 400,000 |
| G-44-PRIVATIZATION CONFERENCE | 2,000 |
| G-39-CENSUS TRAINING FOLLOW-UP | 6,000 |
| G-39,AMD. I-CENSUS TRAINING | 1,200 |
| G-42-HOSPITAL CONTRACT MANAGEMENT | 250,000 |
| G-27,AMD. I -MUNICIPAL WASTE | 45,000 |
| | $963,000 |

## OTHER
## TECHNICAL ASSISTANCE

FY-1988

| | |
|---|---|
| TA-34-JUSTICE ASST. (DEPT. OF CORRECTIONS REVIEW GUAM/NMI) | 12,000 |
| TA-35-AID-FOR PRIVATIZATION CONFERENCE | 67,433 |
| TA-39-PUBLIC SAFETY/DEA TRAINING | 9,000 |
| GEN-17-LAW ENFORCEMENT COORDINATOR | 225,000 |
| PBDC-10-MARICULTURE/AGRICULTURE EXPERT | 150,000 |
| GEN-20-PUAG TRNG.-GUAM-BUR.RECLAM. EXPERT | 197,000 |
| TA-41-PRIVATIZATION CONF.(L.A.) | 2,975 |
| GEN-12,AMD.I.-BROWN TREE SNAKE-FSM STUDY | 15,000 |
| GEN-18-PUBLIC SAFETY ACADEMY-FAS | 134,000 |
| ADVERTISING FOR FINANCE ADVISOR-PALAU | 50 |
| TA-42-MICRONESIA BUSINESS SEMINARS | 25,000 |
| TA-43-U.S. COAST GUARD TRAINING (FAS) | 23,000 |
| PBDC-11-AVIATION & TOURISM CONFERENCE | 7,650 |
| TA-45-PALAU FAX MACHINE | 2,500 |
| GEN-16-WPCA TRAINING/TRAVEL | 13,000 |
| TTPI-30-MICROFILM PROJECT | 200,000 |
| TA-46-FFA PROJECT | 49,000 |
| PBDC-12-EDA WORKSHOP | 8,000 |
| TA-44-USIA SPRING SEMINAR | 43,000 |
| ARS-1,AMD.I-MELON FLY ERADICATION | 85,000 |
| TA-47-EPA WORKSHOP | 35,000 |
| TA-48-EDA WORKSHOP | 5,500 |
| TA-49-CENSUS MONOGRAPH-GUAM | 4,000 |
| TA-50-AIRPORT INSPECTORS | 12,000 |
| | 1,315,108 |

Question: The budget justification (p. 52) references evaluation of success and future direction of the Technical Assistance program as valuable steps before providing additional technical assistance funding. How does the Administration plan to evaluate the success of the technical assistance program?

Answer: Up to this point, the evaluation of the program has been entirely subjective and based primarily on feedback from the insular governments, the program beneficiaries. We are currently looking at ways to develop more objective criteria to measure program/project success. This can be done to some extent by looking for economic indicators and other statistical measures that have a high level of correlation with program accomplishments.

Question: What does the Administration foresee as the future direction of this program?

Answer: We do not necessarily see major policy changes in the program as much as changes in emphasis. Probably, more emphasis should be placed on economic development projects that have a high probability for success and other projects that will increase local revenues. This would be particularly true in American Samoa, the Northern Mariana Islands and the Micronesian entities. In the more developed U.S. territories of Guam and the Virgin Islands, greater emphasis should be placed on reducing government expenditures and seeking greater economies of scale in the operation of government.

### American Samoa Operations Grant

Question: I note with pleasure that the Department has requested a more accurate level of funding for Operations grants to American Samoa for Fiscal Year 1989. However, the itemization of the budget request concerns me. The budget justification (p. 25) indicates that the estimated number of students served by Education (excluding higher education) will increase by 2,426 students from 12,463 students in FY 1988 to 14,879 students in FY 1989, an increase of nearly 20 percent. Yet, the funding level of $5,679,000 for Education remains constant from FY 1988 to FY 1989. This suggests that expenditures per student will decrease. What will be the effect of this on the education quality for the students? How do you propose to remedy this situation?

Answer: The statistical information is provided by the American Samoa Government and we cannot certify as to its accuracy. We also believe that this is an issue of self-government and we would be very cautious of inserting ourselves in the determination of those kinds of priorities. Regardless, we would note that the dollar figure quoted in your question reflects only the distribution of the Interior operations grant. The preliminary distribution of a local revenues shown on page 29 of the justifications shows that local revenues dedicated to education will increase from $4.4 million to $5.8 million. Other Federal programs are also a major source of funding for education and the amount of funds available in any given year from that source may also vary.

### Virgin Islands

Question: A copy of the Virgin Islands Drug Plan was recently received by the Committee. What review process is the plan undergoing? Has Interior reviewed the plan Yet? When will review be completed? Has the $2.5 million appropriated in FY 1988 been released yet? If not, when will it be?

Answer: The plan is being reviewed by the Federal Drug Policy Task Force. The Department's Solicitor, Ralph Tarr, serves on the Task Force and was responsible for overseeing Federal review of the Virgin Islands' plan. The review has been completed and the plan is considered acceptable, contingent on the Virgin Islands providing further information in two areas. One is adequate control of "buy money," $800,000 designated by the Virgin Islands for the use of undercover officers to purchase illegal drugs. The other request is for a more detailed itemization of $300,000 in "administrative costs." As soon as the Virgin Islands responds to these requests, funds can be released as they are needed.

### American Samoa

Question: Please discuss the situation at the fuel tank farm. Is cleanup occurring? When will cleanup be complete? Will completion of the cleanup completely eliminate the hazard?

Answer: Renovation has begun. The initial phase, which will eliminate the immediate hazard, at a cost of approximately $1.7 million, should be completed in about a year. Financing for longer-term improvements, including replacement and relocation of the larger tanks, has not yet been identified.

### Northern Mariana Islands

Question: What is the current status of the CNMI 7 Year Capital Development Plan? When do you expect to receive it for review?

Answer: A contract for development of the plan was signed in March and work commenced immediately. The first deliverable under the contract, "A Profile of the Economy," has been completed and reviewed. The full plan, including identification of projects and sources of financing, is expected to be finished and reviewed by August 1, 1988.

### Compact Capital Development

Question: Please provide the Committee with a summary of how the Federated States of Micronesian and the Republic of the Marshall Islands have expended, or plan to expend, FY 1987, FY 1988, and FY 1989 Compact Capital Improvement Funds.

Answer: That information has not been made available to the Department by the freely associated states. The audit of fiscal year 1987 funds is near completion and should provide good information on the use of funds through September 30, 1987. It is our understanding that a large portion of capital funds for the Marshall Islands has been dedicated to repaying a bond issue that was used to consolidate debts for previously completed projects, such as the power plant and acquisition of aircraft. In the case of the FSM, we believe that very little of the capital funds have been expended.

### Palau

Question: What is the present government employment level? How does this compare with FY 1987? FY 1986?

Answer: As of March 1, 1988, the employment level was 1,240 permanent employees. That compares to 1,322 at the end of fiscal year 1987 and 1,433 at the end of fiscal year 1986.

Question: What is the monthly payroll?

Answer: The monthly payroll is approximately $1.2 million.

Question: What is the status of the fiscal accountability plan requested by the Congress in enacting in FY 1988 appropriations for Palau?

Answer: The plan has been submitted to the Committee.

### Ebeye

Dock

Question: I understand that very recently the dock at Ebeye was substantially damaged by a ship bringing in supplies to the approximately 10,000 people on the island. Could you describe what happened, what the extent of the damage is, and how the island is currently being supplied?

Answer: As you aware, the Compact of Free Association was implemented on November 3, 1986 for the Republic of the Marshall Islands (RMI). As a result, the Department of the Interior is no longer directly involved in the day-to-day operations of the RMI government and its political subdivisions. Therefore, we will direct this question to the RMI and provide the committee with a response as quickly as possible.

Question: Is there a reasonable prospect that the shipping company will pay for the damage done in a timely manner?

Answer: During a recent visit to Ebeye by OTIA staff, it was indicated by officials of the local government that the amount of damage was in dispute and could result in litigation. Therefore, it is doubtful that resolution of the matter will be made soon.

Question: If not, how is the dock going to be repaired?

Answer: The Ebeye dock was in a deteriorated condition prior to the recent collapse of one section of the dock. Temporary mooring buoys had been installed as a stop-gap emergency measure until permanent repairs can be made. The Kwajalein Atoll Development Authority, which is provided $3.5 million annually (adjusted for inflation) under Section 103(d) of the Compact, had proposed emergency repairs of $1,560,000.

Question: (How much will it cost) To replace it?

Answer: In 1986, the Barrett Consulting Group prepared a report on the damage survey of the Ebeye dock with estimates for interim repairs, and cost estimates for two alternative proposals for demolition and construction of a new dock. The first alternative was for a new seaward pier 420 feet long with an estimated cost of $9.9 million, and the second alternative was a pier 520 feet long at a estimated cost of $10.9 million. Both estimates excluded administrative and engineering costs.

Question: Which is the better choice, assuming that the money is available?

Answer: The present condition of the dock has resulted in KADA applying to the Economic Development Administration for a grant to help construct a new dock.

Question: What will happen if the dock is not repaired or replaced?

Answer: The RMI government has advised that some shipping companies have indicated that they may refuse to transport goods to Ebeye if the present condition of the dock is not adequately addressed.

Question: Will the situation become critical?

Answer: The transportation of all goods and people to and from Ebeye is accomplished solely by sea. Docking facilities have a significant impact on the local economy and living conditions. If private shipping companies refuse to dock at Ebeye, the situation could become critical.

Question: When?

Answer: At such time as shipping companies refuse to provide service to Ebeye.

## Electricity Sales to Kwajalein

Question: I understand that the local government on Ebeye is proposing to interconnect with the base at Kwajalein to sell electricity produced at the new Ebeye power plant. I also understand that if an additional 2.6 megawatts were sold to the base from the Ebeye plant, the desalinization facility on Ebeye, which is coupled to the plant, could be run at full capacity, doubling the amount of potable water available on the island. Wouldn't this extra supply of water mean a lot to the people living on Ebeye? Explain.

Answer: Increased production of water could result in fresh water being provided 24 hours a day. The desalination plant can produce up to 300,000 gallons a day using existing equipment if additional electrical load can be created.

Question: What has been the reaction of the base to this proposal?

Answer: The Department of the Interior is aware of informal discussions with U.S. Army Kwajalein Atoll officials, but has not been a party to such discussions. Therefore, we will request that the Department of Defense provide responses to these questions and provide the information to the Committee as soon as it is available.

Question: Does the base need new generating capacity?

Answer: The Department of Defense has been asked to respond.

Question: What prices are being discussed?

Answer: The Department of Defense has been asked to respond.

Question: How does this compare with the cost of electricity that the base would avoid if the Army didn't have to build comparable capacity of its own on Kwajalein?

Answer: The Department of Defense has been asked to respond.

Question: Do you expect any problems in getting the Army to sign a contract with Ebeye to purchase electricity? If so, please explain what these problems are.

Answer: During a recent staff visit to Ebeye, the Commander of U.S. Army Kwajalein indicated strong interest in such a proposal, provided the issues of reliability of service and national security could be adequately addressed.

Question: Doesn't this sale of electricity to the base take on added importance in the plans of the Ebeye government to supply electricity to the island of Guegeegue with the aid of a Rural Electrification loan?

Answer: As a potential source of additional revenues for KADA to finance loans for additional equipment and generating capacity to meet new requirements on Guegeegue and other atoll islands, make the Kwajalein proposal becomes a very important aspect of Atoll development plans.

Question: I understand that the electrification of Guegeegue is very important to the plans of the Ebeye government to get some people to move up there, so the very high density of population can be reduced. Could you explain?

Answer: The present situation on Ebeye, while improved considerably in recent years, is still one of overcrowded conditions. At present, over 10,000 people live in an area of some 85 acres.

The United States has supported the effort of the Marshall Islands government to provide for movement of some families to Guegeegue. The Commander of U.S. Army, Kwajalein has agreed to expand the boat service between Kwajalein and Ebeye to include Guegeegue. However, it is necessary to provide adequate water and power on Guegeegue before local residents can be expected to support the RMI government effort.

Question: What is the estimated cost of the line from Ebye to Kwajalein?

Answer: KADA has projected a total project cost of providing power to Kwajalein at $6.5 million.

Question: From Ebeye to Guegeegue?

Answer: KADA has projected a cost of $540,000 for three miles of overhead electrical transmission lines along the reef from Ebeye to Guegeegue and $525,000 for secondary electrical lines required to serve residential and commercial areas.

Question: What are the plans of the government to pay for these lines?

Answer: The lines can be paid for with loans to be repaid by revenues from user fees and revenues from sales to U.S. Army Kwajalein, and future development funds.

Causeway to Guegeegue

Question: I understand that the key to the plans of the Ebeye local government to reduce the population density on the island is the construction of a causeway to Guegeegue. What is the estimate of the cost of the proposed causeway to Guegeegue?

Answer: This project is included as part of the Ebeye to Nini Causeway, at a projected cost of $9.94 million under the KADA's 15-year plan. KADA will be requested to provide update cost estimates for the Ebeye to Guegeegue segment. (The additional information from KADA has been provided to the Committee.)

Question: Please break this cost down and explain your assumptions.

Answer: We will request KADA provide update cost estimates to the Committee. (The additional information from KADA has been provided for the Committee's files.)

Question: What are the plans to pay for this causeway?

Answer: Federal loans secured against KADA development funds will pay for the causeway.

Cost of oil

Question: How much is the government of Ebeye paying the Mobil Oil Corporation for diesel fuel for its power plant - per barrel and as an annual total?

Answer: From its collections and from a quarterly subsidy from the Republic of the Marshall Islands, Ebeye's powerplant fuel is purchased by the Kwajalein Atoll Government from Mobil Oil Micronesia, Inc. at 65.3 cents per gallon ($28.224 per barrel). The plant's first year fuel bill (not including lubricants) was $825,000.

Question: How much is the Army paying for the diesel fuel that it buys from Mobil?

Answer: The U.S. Army at Kwajalein Atoll (USAKA) does not buy diesel fuel from Mobil. USAKA is provided all fuels by the Defense Fuel Support Center (DFSC), often referred to as the DOD pipeline.

Question: Is there any competition in suppliers for these sales?

Answer: Pursuant to a 1982 Republic of the Marshall Islands/Mobil Oil Micronesia, Inc. agreement, Mobil supplies the Ebeye Power/Desalination Plant with all of its diesel fuel requirements. Under that agreement, there is no competition. There is also no competition at USAKA level. USAKA is billed by DFSC at their bulk rate, which is presently 65 cents per gallon for diesel fuel.

Question: How does the cost of diesel fuel affect the cost of electricity from the Ebeye plant?

Answer: The price of diesel fuel for the Ebeye Plant directly affects the cost of producing electricity at the plant. Naturally, an increase in the price of fuel results in an increase in the cost of electricity. Conversely, any savings in fuel costs reduces the operating costs of the plant.

Question: Do you have any recommendations as to how the Ebeye government could reduce its oil costs? Explain.

Answer: The local government should include in its long range plans, the issue of adequate bulk fuel storage facilities under its own control in order to purchase larger quantities and increase competition among suppliers.

Population

Question: What is the birth rate on Ebeye?

Answer: The birth rate is 36 per 1,000 persons.

Question: What percentage of the population is under age 20?

Answer: Out of a total estimated population of 8,798 people, it is estimated that 60.2 percent of the population--numbering 5,229 individuals, is under twenty years of age.

Question: Under age 15?

Answer: Approximately 49.3 percent of the population is under fifteen years of age.

Question: Under age 10?

Answer: It is estimated that 34.7 percent of the population is under ten years of age.

Question: How many of these children are in school regularly?

Answer: At the outset of the 1987-1988 school year, a total of 2,268 students were enrolled in schools on Kwajalein Atoll. (This does not include the students--including Marshallese students--enrolled in the USAKA school for military dependents, nor does it include the 79 Rongelapese students attending school on Mejetto Island.)

RESETTLEMENT COST ESTIMATES

| | H&N Estimate | DOI Reductions | |
|---|---|---|---|
| Perimeter Road System - Eneu | $ 1,317,000 ) | $ 1,985,000 | 1/ |
| Road System - Bikini | 1,400,000 ) | | |
| Eneu Dock & Small Boat Harbor | 2,886,000 | | |
| Bikini Dock & Harbor | 3,240,000 | | |
| Airport Rehab. & Extension | 4,135,000 | 538,000 | 2/ |
| Runway Catchment | 1,487,000 | | |
| Water Collection System | 662,000 | | |
| Desalinization Plant | 130,000 | 130,000 | |
| Fresh Water Collection and Distribution System | 352,000 | | |
| Well/Pump Station | 50,000 | | |
| Filtering & Treatment Plant | 184,600 | | |
| 300,000 gal. Treated Water Tank | 110,000 | | |
| 700,000 gal. Raw Water Tank | 249,000 | | |
| Bikini Waterline & Storage | 1,600,000 | 5/ | |
| Bikini Water Distribution System | 760,000 | 5/ | |
| Salt Water Distribution System | 367,800 | 367,800 | |
| Sanitary Sewage Line | 444,600 | | |
| Sanitary Landfill & Burn Area | 210,000 | | |
| Bikini Sanitary Landfill | 210,000 | | |
| Shoreline Protection | 544,000 | | |
| Power Distribution System | 1,543,000 | 500,000 | |
| Bikini Electric Power | 1,700,000 | 5/ | |
| Eneu Base Housing | 2,553,300 | 2,553,300 | 3/ |
| Eneu Service Area | 860,900 | | |
| Eneu Support Area | 611,900 | | |
| Power House Bunker Rehab | 64,000 | 4/ | |
| Timing Bunker | 146,000 | 4/ | |
| Communications Bldg. destruction | 110,000 | | |
| Assembly Bldg. destruction | 82,300 | | |
| Camp Blandy - preserve wall | 12,000 | 4/ | |
| Temporary Base Camp | 21,000 | + (816,000) | 3/ |
| Bikini Community Facilities | 4,000,000 | 5/ | |
| Bikini - 135 Houses w/sewage | 15,000,000 | 3,675,000 | 6/ |
| Eneu Indirect costs | 8,288,000) | ( | |
| Bikini Indirect costs | 10,199,092) | (2,295,555 | |
| Eneu Architecture/Engineering and Project Management | 2,268,190) | | |
| Bikini Architecture/Engineering and Project Management | ) 2,791,000) | 525,780 | 7/ |
| Mobilization & Support Transportation | 1,909,000 | 946,404 | |
| Shipping & Port Handling | 1,637,700 | | |
| Total Project Costs/ Reductions (1986 dollars)... | $ 74,138,782 | $ 12,700,839 | |
| CPI increase FY 1986-1989 (12%): | 8,896,654 | 7,372,553 | |
| Total Resettlement costs: | $ 83,035,436 | $ 68,810,496 | |

1/ Coral base road - no paving
2/ Eliminate 700-Foot extension
3/ Eliminate Base Housing/increase temporary camp rehab.
4/ Cost of destruction approximately same amount.
5/ Bikini Master Plan not Complete - Estimate only
6/ New projections by H & N lowers cost estimate
7/ Ten percent of direct costs

Question: Are there any programs for birth control on Ebeye? If not, why not?

Answer: Yes, there are.

Question: What birth control programs, including education programs, would be available to Ebeye?

Answer: In recent years the Marshall Islands government has made considerable progress in family planning services through the Ministry of Health Services and through population, human sexuality, and reproduction education in the schools. Ebeye has a Family Planning staff of two, up from one subsequent to implementation of the Compact of Free Association. The Ebeye government also provides free contraceptives (pills and condoms) and offers a rather extensive education program.

### Bikini - Cost of Resettlement and Rehabilitation

Question: What is your estimate of the cost of rehabilitation of Bikini and Eneu?

Answer: It is currently estimated that the potassium treatment and/or sea water irrigation process would require an expenditure of $20 million. The estimated cost to remove 16 inches of top soil from the surface of Bikini Island and replant the island is $96 million.

Question: What is the cost of resettlement?

Answer: The current estimate for resettlement is $68,810,496.

Question: Please define what these costs are for and what your assumptions are.

Answer: The following projection is based on a review of the preliminary information provided to date by Holmes & Narvar, the Bikini Atoll Rehabilitation Committee and the recommendations of the Bikini Council.

As you know, the final Report for the Bikini Atoll Rehabilitation Committee is to completed by August 1, 1988. Detailed Engineering and cost figures are in preparation by Holmes & Narvar at this time. A 50 percent report briefing is to be provided to DOI in Albuquerque on June 6, 1988.

Therefore, the following projections represent only the best estimate based on the information available at this time and may be subject to further revision based on the final Report of BARC due August 1, 1988 and/or the Detailed Engineering and Cost Estimate being prepared by Holmes & Narvar.

Question: In your view, who should pay these costs? Explain.

Answer: The United States is obligated to provide for the resettlement of the Bikini people under the terms of three legal documents. Article VI of the Compact Section 177 Agreement states that the United States will provide funds "at a time which cannot now be determined".

In March 1985, the United States in settling a federal district court lawsuit in Honolulu agreed to provide funding for resettlement under the terms of three conditions:

a. Submission of a final report by the Bikini Atoll Rehabilitation Committee;

b. Acceptance of the findings of this report by the Bikinians;

c. The development of a plan by the United States, in consultation with the people of Bikini.

At this date, these three conditions of the settlement have not yet been fully met.

Finally, the Compact of Free Association, P.L. 99-239 specifically cites the lawsuit settlement agreement and authorizes funding under the "full faith and credit of the United States". The Associate Solicitor for General Law in an opinion issued June 4, 1986, determined that "failure to provide appropriations to implement these provisions would, as a matter of law be inconsistent with the pledge of full faith and credit."

## Number of People Involved

Question: How many of the approximately 1,500 Bikinians do you expect will return to Eneu and Bikini, once they are rehabilitated?

Answer: We have been unable after five years of effort to get a firm answer to this question. The response is that all of the Bikinians want the right to be able to return.

Question: What is the basis for your estimate?

Answer: Based on a socio-economic study conducted in 1986 as part of BARC's effort, it was determined that 135 homes should be planned.

Question: Has anyone conducted a survey to find out what this number might be?

Answer: Yes, in June 1985, after consultation with the Bikini people, BARC retained Rivkin Associates to make an exploratory study of the social, economic and physical factors bearing on resettlement of Bikini Atoll. The report was inconclusive on this question, but developed a "realistic scenario" based on population projections and modern Bikinian lifestyles. The findings were reported to the Congress in BARC Report No. 4 issued March 31, 1986.

## Resettlement of Eneu

Question: I understand that resettlement of Eneu could begin now. What are the plans for rehabilitation and resettlement of Eneu?

Answer: Conceptual design and cost estimates on Eneu Resettlement were completed with funding provided in FY 1987. Detailed engineering designs and cost estimates are currently being prepared under a contract with Holmes & Narver, Inc. of Albuquerque, New Mexico.

Question: What costs are involved?

Answer: Congress provided $2.3 million in FY 1988 for detailing engineering and agricultural maintenance plans on the resettlement of Eneu. The Conceptual Design Report issued by Holmes and Narver projects an estimated cost of $40 million for Eneu projects, which would also provide the basic infrastructure (water, power) for Bikini. The Department's analysis of the project costs are outlined in detail in response to a previous question.

Question: Who will pay these costs?

Answer: All funding has been provided by the United States Government. Future funding will be provided pursuant to the terms of the March 1985 settlement of a federal law suit and the Compact of Free Association, P.L. 99-239.

Question: How many people do you think will come to live on Eneu? What is the basis for this estimate?

Answer: Other than workers in the initial construction phase, none. The Bikini Council previously rejected DOI proposals for constructing housing on Eneu and has planned for all residences to be built on Bikini Island, with Eneu being the site of water-power infrastructure and port facilities.

## Options for Decontamination of Bikini

Question: I understand that the principal options for dealing with residual radioactivity on Bikini are a scrape of the island, such as was done on Enewetak, and treatment of the soil with fertilizer containing lots of potassium.

Could you explain each of these options? How they would be implemented, what we know about them -- their estimated costs, how soon people could begin moving back, what the risks are for each, etc.?

Answer: These questions are specifically the subject of several years of study and review by the scientists of the Bikini Atoll Rehabilitation Committee and the U.S. Department of Energy's Lawrence Livermore National Laboratory. Preliminary information to these questions have been provided in BARC reports 1, 2, 3, 4, and 5., as well as supporting documents such as environmental assessments on Bikini and Eneu and a socio-economic and physical planning study.

BARC was specifically charged with the responsibility for determining the feasibility and cost of the various methods to rehabilitate Bikini Atoll. The final report, which will address these issues in full detail, and provide the Administration and Congress with guidance based on findings of scientific research, is due August 1, 1988.

Preliminary data indicate that the cost of the scrape option is estimated at $96 million and the potassium/sea water option at $20 million in 1986 dollars.

Question: What has been the experience with scraping at Enewetak? Please explain.

Answer: The Enewetak people returned to Enewetak in May of 1980 after an absence of 33 years. Prior to their return an extensive radiological and debris cleanup program was conducted between 1975 and 1980 under a Joint Task Force organization.

The most significant impact of scraping of Enewetak, was the re-vegetation of the island. Eight years after resettlement, the Department continues to fund agricultural maintenance and supplemental food programs on Enewetak. The level of funding provided by Congress in FY 1988 is $1.1 million.

Question: What research has been done on the scrape option, especially in terms of its impact on the ground water and the prospects for reforestation and production of food?

What research has been done on the option of using potassium fertilizer to block the uptake of radioactive cesium by plants?

How confident are you that this technique will be sufficient over the long term, especially in view of the previous miscalculations during the aborted resettlement of 1968-78?

Answer: Extensive research on these issues has been conducted in a joint venture since 1982 by the Bikini Atoll Rehabilitation Committee under the direction of Dr. Henry Kohn and the Lawrence Livermore National Laboratory under the direction of Dr. William Roberson. Preliminary data has been provided in BARC reports 1, 2, 3, 4, and 5. A final report by BARC is to be issued by August 1, 1988. Unlike the situation during the resettlement in 1968-78, decisions will be based on the findings of several years of research and evaluation at Bikini Atoll by both government and independent scientists.

Question: What is your opinion of each of these options?

Answer: It would be premature to give a definite statement, but preliminary test results and findings strongly suggest that the potassium/sea water option will provide a means of safely resettling the Atoll without the serious environmental impacts which would result from the scrape option.

Question: Are there others that should be considered?

Answer: The Bikini Resettlement Trust Fund was established pursuant to P.L. 97-275 on October 16, 1982. The stated purpose of the Trust fund is relocation and resettlement (emphasis added) of the Bikini people in the Marshall Islands. This fund currently amounts to approximately $21 million and should be also be utilized in funding resettlement of Bikini Atoll.

Resettlement Trust Fund

Question: Suppose Congress were to offer the Bikinians a trade in which the Bikinians waive any rights to file suits against the United States, its agencies or contractors in connection with the weapons testing program conducted at Bikini Atoll in return for the establishment by Congress of a trust fund that the Bikinians would control to pay for the rehabilitation and resettlement of both Bikini and Eneu. In this way the Bikinians would make the key choices about rehabilitating and resettling their islands and provide the money for implementing those choices from the fund.

Am I correct that all parties in this matter believe that this mechanism is the preferable one?

Answer: We are in agreement in principle with the proposal to address the Bikini resettlement funding issue with a trust fund. In recent months, discussions on just such a proposal have been held between the Attorney for the Bikini Council and the attorneys responsible for representing the United States. At this time, however, no agreement has been reached on the method or amount of funding.

Question: A key issue, perhaps the only issue, is how much money is to be appropriated to the fund and when. How much do you believe should be appropriated to the fund and when? Please explain.

Answer: Based on the analysis in response to previous questions on the cost of rehabilitation and resettlement, it is our opinion that funding in the amount of $69,610,496 would be required. The Department will be in a better position to determine when such funding should be available once BARC has submitted its final report on the method of rehabilitation and Holmes & Narver has completed detailed engineering and cost studies on Eneu and a master plan for Bikini.

Question: If no such agreement is reached, what is the prospect for litigation on this matter? For example, how long is it expect to take to resolve litigation on this matter? What could the ultimate exposure of the United States be?

Answer: The suit settled in March 1985, in which the plaintiffs sought an obligation for funding of rehabilitation and resettlement, was said to be worth $45 million by the Bikini Counsel in a press release issued at the time of the settlement.

Also pending in the federal court is an appeal of a 1987 decision which upheld the Section 177 agreement and dismissed a suit seeking $450 million.

Oral arguments on this appeal are scheduled for early fall and a decision is expected by early 1989. If the appeals process is carried all the way to the U.S. Supreme Court, a final decision may not be forthcoming until 1992. The ultimate exposure is $450 million plus legal fees.

FSM

Question: Please provide the Committee with a summary of how FY 87, FY 88 and FY 89 Compact capital account funds have been, or are planned to be expended. Also include a summary of infrastructure operations and maintenance funding for these same periods.

Answer: This information has been requested from the Government of the Federated States of Micronesia. The information will be forwarded to the Committee when it is received.

Question: Several of the docks built in the FAS under the T.T. CIP program have been damaged by ships. What payments, if any, have your governments recovered for ship operations or their insurance companies for repair of such damage?

Answer: This information has been requested from the Government of the Federated States of Micronesia. The information will be forwarded to the Committee when it is received.

Question: Also, do you have specific plans to increase collections for such damage?

Answer: This information has been requested from the Government of the Federated States of Micronesia. The information will be forwarded to the Committee when it is received.

RMI

Question: Please provide the Committee with a summary of how FY 87, FY 88 and FY 89 Compact capital account funds have been, or are planned to be expended. Also include a summary of infrastructure operations and maintenance funding for these same periods.

Answer: This information has been requested from the Government of the Republic of the Marshall Islands. The information will be forwarded to the Committee when it is received.

Question: Several of the docks built in the FAS under the T.T. CIP program have been damaged by ships. What payments, if any, have your governments recovered from ship operations or their insurance companies for repair of such damage?

Answer: This information has been requested from the Government of the Republic of the Marshall Islands. The information will be forwarded to the Committee when it is received.

Question: Also, do you have specific plans to increase collections for such damage?

Answer: This information has been requested from the Government of the Republic of the Marshall Islands. The information will be forwarded to the Committee when it is received.

Question: Of the approximate $11 million total in Compact payments for Kwajalein, $1.9 is separated out for impact funding. Of the remaining $9.1 million, 40 percent must be used for capital improvements. Please provide a summary of how the $1.9 and the 40 percent capital improvement funds have been, or are planned to be used, in FY 87, FY 88 and FY 89.

Answer: This information has been requested from the Government of the Republic of the Marshall Islands. The information will be forwarded to the Committee when it is received.

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Virgin Islands

Question: The justification on page 38 indicates that water system improvements in the Virgin Islands are estimated to cost $17 million. Through FY 88, $7.3 million has been funded with an additional request of $1.1 million in FY 89. Is the estimated total cost of $17 million consistent with the studies performed by the engineering firm CH2M Hill for Virgin Islands?

Answer: Yes, it is. The water distribution master plan, prepared by CH2M Hill, is divided into two phases. The first phase which is scheduled to be completed by 1990, was to emphasize correcting deficiencies in the current system and establish a sound base for future expansion. The cost estimates for this plan have ranged between $15.5 million and $17 million. The second phase will concentrate on expansion of the current system with a total estimated cost of approximately $10 million.

Question: In FY 88, $2.5 million was provided to the Virgin Islands for drug abuse control as authorized by the Anti Drug Abuse Act of 1986. That act required funds to be contingent upon the preparation of a three-year plan for the control, prevention, and treatment of narcotics abuse. It is my understanding that the plan for the Virgin Islands is complete. Have you analyzed the plan?

Answer: Yes, we recently received a copy of the plan and have had an opportunity to analyze it.

Question: If so, what is your reaction to the plan?

Answer: We believe the plan is well structured and is compatible with the objectives of the National Drug Policy Board. We have raised two questions concerning the plan. First, the plan contains a significant sum of money to be used by agents to purchase illegal drugs from dealers in order to develop evidence. We have asked and are helping the Virgin Islands government to work with Federal law enforcement agencies to develop a process to properly control and account for the use of this "buy" money. Also, we have asked the Virgin Islands government to provide a more thorough explanation of "administrative expenses" that are incorporated in the plan.

Question: What is the status of the $2.5 million?

Answer: The $2.5 million has been granted to the Virgin Islands government, pending final approval of the plan. The cash will be paid to the Virgin Islands government based on a schedule of payments that they are now developing.

## Guam

Question: In FY 88, $1.0 million was provided for land acquisition and design of the expansion of the Ordot landfill. These funds were provided contingent upon the development and implementation of a system of user fees to cover the cost of operating the landfill. The Department has requested an additional $1.7 million in FY 89 for continued work on the landfill. It is my understanding that additional authorizing legislation is necessary for the expansion of the Ordot Landfill (pg. 20). What is the status of that legislation?

Answer: A legislative proposal has been prepared and submitted to the House Committee on Interior and Insular Affairs and the Senate Committee on Energy and Natural Resources. No legislative action has yet been taken.

Question: What has been done with the $1.0 million to date?

Answer: The $1.0 million has been granted to the Government of Guam and we have requested a plan for its use. It is our understanding that the money will be used to begin land acquisition and to pay for engineering design of site improvements.

Question: What were the recommendations included in EPA's report?

Answer: EPA has not completed its final report. Their preliminary report indicates that there has been some contamination of surface water, but no seepage yet of contaminants into the ground water lens, the source of most of Guam's drinking water. EPA strongly supports the expansion of the landfill as the most viable option to solving Guam's immediate solid waste disposal problems.

Question: The Government of Guam has requested an additional $3.2 million in FY 89 for the Guam Memorial Hospital. They justify this request because they feel these funds are necessary to bring back a high quality of health care for the people of Guam. What is the financial status of the hospital?

Answer: The hospital remains a significant drain on the general funds of Guam. However, the Government of Guam has taken recent action to improve administration of the hospital, including hiring a new administrator, improving billing and collection procedures and installing a new automated management and accounting system. The Department is supporting the effort with technical assistance.

Question: When did the United States last provide funds for the hospital?

Answer: The United States provided $5.6 million in fiscal year 1985 for renovation of the hospital. These funds have not been expended by the Government of Guam, although a contract was recently awarded. The hospital also received a technical assistance grant of $400,000 in fiscal year 1988 for installation of a new financial management system.

Question: Do you feel the Government of Guam has done everything it can to maintain the hospital?

Answer: No, we do not believe the Government of Guam has historically done a very good job of operating or maintaining the hospital. However, they are now making a concerted effort to improve hospital operations.

Question: If not, what could the Government of Guam do that they haven't done to date?

Answer: The installation of a new financial management system with better billing and collection procedures should help improve the financial situation, which in turn will help improve maintenance. Our experience has been that maintenance is usually the first item to be cut when money is short.

## American Samoa

Question: In FY 88, $1.0 million was provided for cleanup of hazardous conditions at a fuel tank farm in American Samoa. Costs above this amount needed to correct the situation were to come from non-Federal interest. Oil from one of these tanks leaked in 1986 in an area which is near a residential area. What is the status of the cleanup effort?

Answer: It is our understanding that the leakage was cleaned up immediately and temporary repairs were made to the ruptured tanks. The ruptured tanks will be replaced in fiscal year 1988 using the funds appropriated by the United States Congress.

Question: What is the status of the Department's report on the cost and appropriate role of the Federal government?

Answer: The Department has been gathering data in order to make the report requested by the Committee. Much of the data, including cost estimates by the renovation contractor and an assessment of property values, are still in draft form.

Question: What were the recommendations provided by the EPA?

Answer: The American Samoa Government has sought exemption under the Clean Air Act from EPA with respect to construction of new tanks. EPA has not granted the exemption and is requiring that "floating-roof devices" be installed on the new tanks at a cost of $30,000 per tank. EPA believes the devices are reasonable, will ensure compliance with primary ambient air quality standards, and will improve the cost-efficiency of the tanks by reducing the amount of fuel loss caused by evaporation.

Question: You have requested $1.0 for water system improvements in FY 89 for American Samoa. You have estimated the total costs of this system to be $1.0 million. Is this to fix the entire system or simply this part of the system?

Answer: The $1 million will fix only a portion of the system.

## Northern Mariana Islands

Question: In 1984 and 1985, the United States and the Commonwealth of the Northern Mariana Islands negotiated an agreement relating to the future funding assistance of the United States. The thrust of the agreement was to place a decreasing emphasis in the CNMI on Federal subsidies for government operations and a greater emphasis on economic development activities. The FY 89 request for the operations of the CNMI is a reduction of 8 percent below the FY 88 enacted level. I know that this reduction is consistent with the agreement between the U.S. and the CNMI but I would be curious to know if you feel the CNMI is truly improving government efficiency and decreasing the emphasis on Federal assistance?

Answer: We believe that the CNMI is truly decreasing its emphasis on Federal assistance. This is due to significant increases in local revenues (from $34 million in 1985 to $44 million in 1986 to $52 million in 1987), more than it is due to significant improvements in government efficiency.

## Technical Assistance

Question: For FY 89, you have requested a decrease of $3.0 million (-59 percent) in the Technical Assistance program. Funds in this program are used for research, planning assistance, studies and demonstration projects. According to your justification, the reduction will allow key elements of the program to continue, but will give the Department a chance to complete and clear out many projects that have remained active but not completed for significant periods of time. How many projects do you have that have "remained active but not completed?

Answer: There are approximately 25 projects which fall in this category.

Question: Why?

Answer: There are many reasons for a project to remain active for a long period of time. One of the most common and valid reasons is that the project is complex and requires a lengthy implementation period. An example of this type of project is installation of a financial management system. A second reason is that the project is intended to be or becomes an integral part of government operations. There is often a fine line between a valid request for technical assistance and merely seeking a subsidy to normal government operations. A third reason is that a project is approved on a conceptual basis, but the implementation is more difficult then was anticipated. Sometimes these projects remain open for long periods of time before they are either discarded and the funding reprogrammed, or some impetus is provided to force action.

Question: How long have many of these projects been pending?

Answer: A few projects have had little or no activity for as long as 18-24 months.

Question: How much of the previously appropriated funding do you anticipate carrying over into FY 89?

Answer: We estimate an unobligated balance at the end of fiscal year 1988 of less than $500,000. However, unliquidated obligations (funds awarded but not yet expended by the insular governments) will likely range between $3 million and $4 million dollars.

Question: What do you anticipate to be the pending amount of requests for funds from the program at the end of FY 88?

Answer: We do not expect there will be any pending requests at the end of fiscal year 1988. All requests will be addressed and comments will be given to the governments.

## Trust Territory of the Pacific Islands

Question: In FY 88, $8.5 million was provided to begin repaying the Trust Territory Government deficit. This deficit has accumulated over the years as a result of poor administration practices and unbudgeted cost overruns. The Trust Territory was able to operate with this deficit because of on-going, multi-year appropriations and a normal lag in the construction process. You have not requested additional funds in FY 89 to pay any of the remaining deficit. You estimate that the FY 88 funds will cover all prior year construction funds that come due through FY 89. How sure are you that these funds will cover FY 89?

Answer: Annual cash outlays for the capital improvement program have been ranging between $14 million and $20 million for the past several years. Using available authority, the Department could outlay up to $26 million in FY 1989. Therefore, under anything other than extraordinary circumstances, we are certain that we have sufficient cash authority to cover all payments in FY 1989.

Question: Should I assume that you will request the necessary funds to pay off the remainder of the deficit in future years?

Answer: We can only assure you that the deficit issue will be raised and discussed during development of the fiscal year 1990 budget.

Question: What was your request to OMB for FY 89?

Answer: The Department's request to OMB was for $18 million.

Question: When the $8.5 million was provided, it was based on an assumption that the total requirements to pay off the deficit would be $13.5 million. The FY 89 justification indicates that the estimate has risen to $18 million. Why has the estimate risen?

Answer: The $13.5 million estimate was determined by the auditors in the FY 1986 audit of the Trust Territory Government. They did not take into account a recent appropriation for construction of the Palau hospital, since it has not yet been obligated in the form of a grant to Palau at the time of the audit. Thus, obligations were understated by approximately $4.7 million. The auditors later corrected this omission through a footnote to the audit. The estimated deficit, after rising to $18 million, was once again reduced by $2.5 million due to the identification of residual funds, or funds left over from capitol improvement projects after projects were completed. However, the recent discovery of deficiencies or shortfalls in other projects has required us to obligate some of the money. In addition, the Navy Office-in-Charge of Construction (OICC) recently settled a pending $6 million lawsuit by a construction company by agreeing to pay $2.5 million. This action again raises the deficit to a level between $18 million and $19 million.

Question: How confident are you that $18 million is the final estimate?

Answer: At this time, it is the best estimate we have. There are other pending claims and lawsuits that could change the estimate, as well as possible claims for disallowed costs by Federal agencies under grant programs.

Question: Will the $18 million estimate of the deficit increase if no additional funds are provided in FY 89?

Answer: No, there is no direct correlation between the FY 1989 funding issue and the final amount of the deficit.

## Palau Operations

Question: In FY 87, $10 million was provided to the Republic of Palau for the operations of their government. It is my understanding that these funds did not last the entire year and there was some violence when those funds were completely utilized. As we proceed further into FY 88, it appears we are headed for a similar situation except the $11.2 million provided for FY 88 will not last as long as the FY 87 funds. Is that accurate?

Answer: It appears that a cash shortfall will occur at about the same time this year as in FY 1987, but the magnitude of the shortfall may be greater this year if no new financial assistance is provided.

Question: How are the funds allocated from the U.S. Government to the Republic of Palau? Monthly? Weekly? An annual grant?

Answer: Palau receives an annual grant. Payments against the grant are made at the beginning of each month. Because of the pending financial crisis this year, the Department agreed to accelerate the last six months of payments by making the payments over a four-month period.

Question: What is the Republic of Palau doing to correct this situation?

Answer: At this point, Palau has few options. They have borrowed money to meet immediate cash needs and have taken administrative action to place tighter control on the use of money. Significant savings in expenditures can only be achieved through major reductions in the number of government employees. This is not a very tenable short-term solution for an economy still dependent on government as the primary employer. Significant new revenues can only be achieved by new tax legislation or outside assistance, such as that to be provided by the U.S. under the proposed Compact of Free Association. Palau clearly sees Compact implementation as the most viable option to correct their financial situation.

Question: What did your office do in FY 87 and FY 88 to ensure that a similar situation does not take place this summer?

Answer: Our office took action in two areas. We worked cooperatively with the Palau government and the Departments' Office of Inspector General to identify technical assistance that would improve control of funds and provided Palau with outside advice and expertise. We also have worked with other offices and agencies in the Administration to support proposed legislation that would implement the Compact of Free Association.

Question: Since funds to Palau have increased from $8.7 million in FY 81 to $11.2 million in FY 88, additional funds do not seem to be the answer. Do you agree?

Answer: Not entirely. On a constant dollar basis, the increase from 1981 to 1988 is minimal. Compact funding will significantly increase income and will resolve Palau's cash crisis virtually overnight. However, there are endemic problems in Palau that have created this financial crisis. Unless these problems are addressed in terms of major changes in fiscal policy and behavior, there is a strong likelihood that Palau will soon face another crisis.

Question: What are you proposing to correct the problem in the near term?

Answer: We do not have any near term solutions that do not involve additional funds. Our preferred alternative is Compact implementation. Our back-up strategy is to reprogram sufficient funds to keep Palau solvent through the end of the fiscal year and to work toward correcting the FY 1989 budget so that Palau does not face another crisis on October 1, 1988.

## SUBCOMMITTEE RECESS

Senator JOHNSTON. The hearing is recessed.

[Whereupon at 3:55 p.m., Wednesday, April 20, the subcommittee was recessed, to reconvene at 10 a.m., Thursday, April 26.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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TUESDAY, APRIL 26, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 10:05 a.m., in room SD–116, Dirksen Senate Office Building, Hon. Harry Reid presiding.

Present: Senators DeConcini and Reid.

## DEPARTMENT OF THE INTERIOR

### OFFICE OF THE SECRETARY

### STATEMENT OF RICK VENTURA, ASSISTANT SECRETARY, POLICY, BUDGET AND ADMINISTRATION

**ACCOMPANIED BY:**

**JOSEPH W. GORRELL, PRINCIPAL DEPUTY ASSISTANT SECRETARY, POLICY, BUDGET AND ADMINISTRATION**
**MARVIN E. WHITEHEAD, BUDGET OFFICER**
**JOHN TREZISE, DIRECTOR OF BUDGET AND FINANCE**

### BUDGET REQUEST

Senator REID. The subcommittee will come to order.

This is the time scheduled for the Appropriations Subcommittee on Interior and Related Agencies to hear testimony on the fiscal year 1989 budget requests of the Office of the Secretary, the Office of the Solicitor, and the Office of the Inspector General of the Department of the Interior, the Navajo and Hopi Relocation Commission, and the Institute of American Indian and Alaska Native Culture and Arts Development.

This morning we will begin with the Office of the Secretary.

The fiscal year 1989 budget proposes $53,481,000 for the Office of the Secretary, an increase of $4,162,000, or 8.4 percent over fiscal year 1988 appropriations to date.

The principal witness testifying on behalf of the Office of the Secretary's budget is the Assistant Secretary for Policy, Budget, and Administration, Mr. Rick Ventura.

Mr. Ventura, welcome to the subcommittee.

Mr. VENTURA. Thank you, Mr. Chairman.

Senator REID. This is your first appearance before the subcommittee, as I understand it.

Mr. VENTURA. That is correct.

### PREPARED STATEMENT

Senator REID. We will include not only your entire statement, but we will also include your biography.

We would ask you to introduce your associates with you today and briefly summarize your opening statement and then we will proceed to questions.

[The statement follows:]

# STATEMENT OF RICK VENTURA

Thank you for the opportunity to appear before you today in support of the FY 1989 Budget for the Office of the Secretary in the Department of the Interior. Before highlighting the changes we have proposed for the FY 1989 budget I would like to say that we appreciate the Committee's actions regarding our FY 1988 appropriation, including the Conferees' lifting of the dollar earmarking in the Secretary's Immediate Office.

The Department is requesting appropriations totalling $53,481,000, including $51,681,000 for the Office of the Secretary and $1,800,000 for the Office of Construction Management, to provide executive direction, coordinated policy development and oversight in line with current Administration initiatives and Congressional direction to ensure the efficient management and operation of Departmental activities.

## Salaries and Expenses

I would like to explain the changes we have proposed from the 1988 program for the FY 1989 budget.

The Department requests an increase of $4,162,000 and 25 workyears from the 1988 appropriated levels to finance executive direction and management of the Department's activities, and to carry out the responsibilities of this Cabinet level office. Of the $4,162,000 increase, $3,793,000 is for program increases with the balance of $369,000 for base adjustments. The changes are detailed as follows:

## Program Increases ($3,793,000)

+$1,200,000 in Central Services to begin repair and restoration of the historic features of the Main Interior Building;

+$575,000 and one workyear to meet costs associated with the Department's Productivity Enhancement Fund program and requirements under the Freedom of Information Act;

+$250,000 and five workyears for a transfer of responsibility from the Office of the Inspector General for negotiating indirect cost rates with Department contractors;

+$167,000 and three workyears related to an expansion of measures to enable EEO staff and program managers in the Department to become proficient in reducing the number of complaints and therefore costs;

+$250,000 and four workyears for audit follow-up and related workload to ensure reporting requirements are met and timely responses are made to audit reports;

+$945,000 and six workyears to analyze long-term issues of significance to energy and natural resource management and to secure technical expertise in regards to the Superfund law, the Safe Drinking Water Act, and ground water; and

+$406,000 and six workyears applied to offices throughout the account to provide for an effective level of operations for these offices, consistent with predicted workload and service requirements anticipated in FY 1989.

I would like to mention that since the budget for 1989 was transmitted, we have submitted to the Committee a reprogramming request for 1988 which would allow the implementation of a proposed reorganization of the Office of Policy, Budget and Administration, and in effect change our plans for use of part of the $945,000 requested to analyze long-term policy issues. This alternate use of requested funds would not change the overall amount requested for the Office of the Secretary appropriation.

Base Adjustments ($369,000)

This includes increases for GSA office space rent, the January 1988 pay increase, executive and clerical pay raises, Working Capital Fund expenses, and other such items. These increases are offset to a considerable degree by decreased retirement costs from the FY 1988 enacted level.

Construction Management

This appropriation provides for the expenses of the Office of Construction Management (OCM) to assist in the planning, construction and operation of facilities. Resources requested for this activity total $1,800,000 and 18 workyears, the same level as 1988. We have expanded and intensified our efforts to assist the BIA's facilities program, and many accomplishments have been realized in this area during the past year.

First, we have accomplished, or are on schedule with, the five major program objectives established by both the House and Senate Appropriation Committees. These include:

— Improvement in the rate of Facilities Improvement and Repair obligations and procurements. Seventy-seven percent of the FY 1987 appropriation was obligated in that fiscal year. We expect even better performance this year.

— Acceleration of the reduction of excess BIA space. We have reduced our inventory by more than 340,000 square feet this fiscal year with annual Operation and Maintenance savings of $240,000 and repair items savings of $4.2 million.

— Completion of the final draft report on BIA Education on March 17 of this year. This report is a comprehensive analysis of BIA funded schools.

— Committee and Departmental approval of the reorganization of the Office of Facilities Management in Albuquerque; employees formally began operating under the new structure on April 11, 1988.

— Development of a revised Operations and Maintenance formula for allocating Facilities Improvement and Repair funds with a planned implementation date of October 1, 1988.

We have complied with all other facilities directives as well for the first time in ten years.

These accomplishments have been possible because of cooperative efforts between BIA and OCM. All have been accomplished with the overall objective of building the capacity in the Bureau to fully manage its program in the future. We have secured resources from a number of organizations including other Federal agencies in order to provide Bureau managers with the expertise and support they need. Our accomplishments in this program speak for themselves.

Preservation of the Main Interior Building

We are requesting $1,200,000 to begin a program of preservation and maintenance needs of the historic Main Interior Building, for which we have recently assumed management responsibility under a delegation from the General Services Administration (GSA). GSA has awarded a contract to do a basic analysis of the preservation and maintenance needs of this building, which was listed in the National Register of Historic Places in late 1986. This report will be completed this month. Since it is nearly certain that GSA will not be able to provide funds to us to follow through with the report's recommendations in the near future, our request for funding is made to ensure the long-term preservation of the Interior Building and its works of art. The bulk of the request will fund high priority projects, such as: (1) restoring the building's twenty-two murals, many of which are damaged and discolored; (2) updating and revitalizing the Departmental Museum, including exhibit and collection rehabilitation; and (3) training on appropriate preservation and maintenance techniques for building managers and mechanics responsible for the maintenance of the building.

## Management Improvements

The Department is continuing its efforts towards management improvement, and I would like to provide a status report on some of these efforts.

- Productivity Improvement: In 1987 policies and procedures were developed for a new program designed to finance innovative, low cost, high-payback productivity improvement projects. Since this program focuses on improving the delivery of products and services to the public, we are reaching out to our managers in the field where we think the greatest opportunity to improve efficiency, quality, and timeliness of operations exists. The Bureaus are supportive of this program. The Productivity Enhancement Funding Program (PEF), as part of Interior's overall Productivity Improvement Program, has received over 140 proposals from bureaus and offices. The program is under pilot testing during 1988 and will encompass 21 projects funded by the bureaus during the first year. If these projects are successful, cost savings of over $11 million are projected over the next three years. Two awards of $10,000 each will be made to recognize employees of two units whose projects demonstrate the highest rate of return and the most significant improvement in service delivery. In 1989, we estimate 40 projects will be funded under this program. The Secretary has proposed establishing a fund of $500,000 which will be used to partially finance PEF projects on a matching basis with the bureaus.

- Financial Integration Review for Management (FIRM): The FIRM initiative began as an effort to establish a sound Departmental strategy to improve financial operations. FIRM was undertaken for several reasons. First, our financial systems are old and cannot communicate with each other. In order to provide management with better data for making decisions, these systems must be improved. Second, the reduction in the number of systems (10 administrative accounting systems and 30 payment centers) will lead to efficiencies. Most of these systems are based on 1960/1970's technology which cannot provide improved financial operations without major systems modifications. Moreover, they utilize different hardware, coding structures, and software. The purpose of FIRM is to implement a standardized administrative accounting and payment system for the Department to be operated at two locations. Within the standardized system, unique bureau requirements related to budget structure and geographic locations will be preserved. The Geological Survey has been chosen as the lead agency for this project with Departmental oversight. Standard accounting system software was competitively procured in September

1987. The system will be implemented in the Geological Survey and the Bureau of Reclamation at the beginning of 1989, with the remaining bureaus joining the system in 1990 and 1991.

- Payroll/Personnel System (PAY/PERS): System development for PAY/PERS was initiated in 1976 and implemented in 1979 for the Bureau of Land Management, the Bureau of Reclamation, and several small agencies. In 1982, it was selected as the single Departmental payroll/personnel system. All Interior Bureaus and three non-Interior agencies were converted to the system by 1984. Today this one system services over 116,000 accounts for all Bureaus of the Department and three other agencies (the Education Department, the Selective Service System and the Federal Labor Relations Authority). In order to upgrade PAY/PERS, the Department is considering a proposal to adapt the FBI's Payroll/Personnel software for this purpose and has completed a cost-benefit analysis of the system.

- Unemployment Compensation: An initial review by the Department's Office of Financial Management identified certain internal control weaknesses in our unemployment compensation process. To correct these problems a contractor was engaged to conduct the technical aspects of the program, including training bureau personnel, appealing claims, etc. Between January 1, 1986 and the end of February, 1988, the Department has avoided costs of more than $4 million through this effort, primarily through appealing improper claims.

- Overtime Costs: In 1985 the Department spent more than $52 million for overtime. Efforts to improve the management and control of overtime have resulted in savings of approximately $4.1 million in 1987, and an additional $4.3 million is expected to be saved during 1988.

- Cash Management: Interior is considered a leader in cash management in the Federal government. From 1983 through 1987 Interior saved the U.S. Treasury approximately $23 million, with an additional $4 million in savings expected in 1988. Examples of activities include: (1) the use of wire transfers for receipts and expenditures; (2) a reduction of travel advances from $12 million to $4 million as of December 1987; and (3) the initiation of credit card technology to collect Federal funds.

## Administrative Provisions

Appropriation language is requested to provide authorization for the acquisition of eleven aircraft, seven of which shall be for replacement for the Office of Aircraft Services (OAS) fleet. As part of the budget process, each year OAS reviews records and estimates of how many aircraft will need to be replaced or new additional aircraft purchased in a given year. This estimate provides for general replacement of older aircraft and some contingency in case of destruction of existing aircraft. We are continuing our efforts in the area of aviation safety and are assisting the bureaus in developing their own safety plans.

## Consultant Services

The Department proposes to increase from $300,000 to $810,000 the limitation on consultant services as authorized by 5 U.S.C. 3109. When the $300,000 limitation was included in the FY 1968 Department of the Interior and Related Agencies Appropriations Act, the salary rate for a GS-15, step 10, which is the highest rate at which consultant services can be reimbursed, was $25,711. The current salary rate for that grade is $71,377 or 270 percent of the 1968 level. As salary rates have risen, the $300,000 limitation has increasingly become a problem for the Department. In order to approximate the same amount of consultant services in 1989 as was available in 1968, we propose to increase the limitation from $300,000 to $810,000.

## PBA Reorganization

Finally, in order to improve the management within the Office of the Secretary we have proposed to the Subcommittee in a letter dated March 8, 1988, a reorganization and reprogramming affecting some offices within the Office of Policy, Budget and Administration. The reasons for the new organization and the special features of it focus on increased management emphasis in several functional areas, better coordination and efficiency, and changes in individual responsibilities to accomplish these goals. We hope that the Subcommittee will respond favorably to this proposal.

This concludes my opening statement, Mr. Chairman. I appreciate the opportunity to discuss these matters with you. I will be pleased to answer any questions this Committee may have with regard to this request.

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## BIOGRAPHY OF RICK VENTURA

Born in Los Angeles, California. Graduate of California State University.

Appointed Assistant Secretary in September 1987 by President Reagan.

Deputy Director of ACTION from August 1985 until September 1987, where he helped manage a volunteer service agency and was responsible for overall management of agency resources, including personnel, agency budgets, procurement and property.

Prior to joining ACTION was Executive Director of the National Advisory Council on Adult Education. Director of Development for University of California at San Diego and Director of Development and Planning for University of Southern California and Assistant Dean of Whittier College.

## INTRODUCTION OF ASSOCIATES

Mr. VENTURA. Thank you, Mr. Chairman.

To my far left I have with me Mr. Joseph Gorrell, Principal Deputy Assistant Secretary for Policy, Budget and Administration.

To my immediate left I have Mr. Marvin Whitehead, Budget Officer for the Office of the Secretary.

To my right I have Mr. John Trezise, the Director of Budget and Finance for the Department.

## FISCAL YEAR 1989 BUDGET REQUEST

Thank you for the opportunity to appear before you today in support of the fiscal year 1989 budget request for the Office of the Secretary.

As you mentioned, Mr. Chairman, the Department is requesting appropriations totaling $53,481,000, including $51,681,000 for the Office of the Secretary and $1,800,000 for the Office of Construction Management. This will provide executive direction, coordinated policy development and oversight in line with current administration initiatives and congressional direction to ensure the efficient management and operation of departmental activities.

Within the salaries and expenses account the Department requests an increase of $4,162,000 from 1988 appropriated levels. Of this increase, $3,793,000 is for program increases with the balance of $369,000 for nondiscretionary base adjustments. I would like to highlight some of these increases.

We are requesting $1.2 million to begin a program of restoration and repair of the historic main Interior Building. This request is made to ensure the long-term preservation of the Interior Building and its exceptional works of art. Examples of the specific activities to be undertaken include restoring the building's 22 murals, many of which are damaged and discolored, and updating and revitalizing the departmental museum and its collection.

Mr. Chairman, I brought with me this morning a publication by the National Park Service entitled "The Interior Building: Its Architecture and Its Art," which I would like to submit to the committee. I believe this goes a long way to support our request for the $1.2 million.

Second, the secretary has proposed $500,000 to establish a departmental productivity enhancement fund to be used to finance PEF projects on a matching basis with the bureaus. The bureaus are highly supportive of this program with the Office of the Secretary. We expect a 6-to-1 return on investment over the life of these projects.

A sum of $250,000 is included in our request to provide for the transfer of responsibility for negotiating indirect cost rates with departmental contractors from the Office of the Inspector General to the Office of the Secretary.

We are continuing our efforts toward management improvement in other areas as well. The financial integration review for management [FIRM] initiative, has established strategy to improve financial operations. Beginning this October we will be implementing a standardized administrative accounting and payment system for the Department. Within this standardized system unique bureau requirements related to budget structure and geographic location will be preserved.

By utilizing effective cash management, Interior has saved the U.S. Treasury approximately $23 million from 1983 through 1987 with an additional $4 million in savings expected in 1988. As a result of the Department's activities in this area we have become a leader in cash management in the Federal Government.

### REPROGRAMMING REQUEST

I would also like to mention that since the fiscal year 1989 budget was transmitted we have submitted a reprogramming request in order to improve the management within the Office of the Secretary. We have proposed to the subcommittee in a letter dated March 8, 1988, a reorganization and reprogramming affecting some offices within the Office of Policy, Budget and Administration. Reasons for the proposed reorganization and the special features of it will focus on increased management emphasis in several functional areas which we firmly believe will lead to better coordination and efficiency and greatly enhance our ability to accomplish our goals.

Mr. Chairman, we have been advised that our proposal has been approved by the House of Representatives Subcommittee on Interior and Related Agencies. It is our hope that similar approval will be forthcoming from this subcommittee.

Our budget request also includes $945,000 to analyze long-term issues of significance to energy and natural resource management and to secure appropriate technical expertise. The proposed reprogramming effectively redirects a portion of this $945,000. This alternative use of funds, however, would not change the overall amount requested for the Office of the Secretary.

### OFFICE OF CONSTRUCTION MANAGEMENT

Resources requested for the expenses of the Office of Construction Management in fiscal year 1989 total $1.8 million, the same level as 1988. Based on this committee's directive of March 26, 1987, we have expanded and intensified our efforts to assist the BIA facilities management program. We are pleased to report that we have accomplished or are on schedule with five major program objectives established by the House and Senate Appropriations Committees. We have been able to comply with all other facilities directives as well for the first time in 10 years.

This concludes my opening remarks, Mr. Chairman. I appreciate the opportunity to discuss these matters with you, and I will be pleased to answer any questions you may have at this time.

### FUNDING LEVELS

Senator REID. I would like to discuss with you how the administration arrived at the funding levels shown for the various organizations in the Department. The total budget requested for the Department represents a 9.3-percent decrease below the 1988 appropriations to date.

Within that total some interesting things have occurred. The Bureau of Land Management budget decreases by 6.8 percent, Fish and Wildlife by 18.6 percent, National Park Service by 13.2 percent, Bureau of Mines, 13.5 percent, Office of Surface Mining, down 13.7 percent, and on and on.

After looking at the bad news throughout the Department, we finally arrive at the Office of the Secretary, the Office of the Solicitor, and the Office of the Inspector General. These overhead functions increase by 8.4, 9.9, and 6 percent respectively.

We need you to describe for the committee how the priorities reflected in the fiscal year 1989 budget now before us were established.

Mr. VENTURA. Mr. Chairman, the reason the Office of the Secretary reflects an increase is largely due to the fixed costs in our budget submission. Those fixed costs are present within the other bureau budgets, but they are somewhat masked by the total amount which each bureau has requested. In other words, a good portion of our increase is a result of the January 1988 payroll increases, other fixed costs, and the increase for maintenance of our buildings.

Senator REID. We have had other agencies come here, and to my knowledge this is the largest increase that we have had. I don't know of another one that is this high. I thought that you would talk about maybe the fact that you were talking about land acquisition or some new grant programs, but just to say that this is increased salaries, I don't think it would amount to that much money.

Mr. TREZISE. Mr. Chairman, the principle that the Secretary applied in proposing our budget to the Office of Management and Budget and in proposing the budget to the Congress was to protect the operating programs of the Department. Within the totals for the various bureaus you will find in most instances the operating program has been maintained at the fiscal year 1988 level or higher.

The decreases that you referred to are as a result of proposals to reduce land acquisition, grants, and certain other expenses of that kind which in our view and the administration's view are lower priority matters that given the overall budget situation need to be deferred.

Senator REID. For the major operating appropriations of the Department we find the following decreases: Bureau of Land Management, 6.9 percent; Fish and Wildlife, 3.1 percent; Bureau of Indian Affairs, 3.3 percent; Bureau of Mines, 13.5 percent; Geological Survey, 5.1 percent. And on and on. Again, it is not the operating costs, because they are decreasing.

Mr. VENTURA. Mr. Chairman, even within those figures some of the decreases, for example, the Bureau of Land Management, reflect primarily two factors. One, decreased funding for fire suppression costs, and second, a decrease attributable to overestimates in fiscal year 1988 of the amount of funding necessary for the Federal employees retirement system. If those two factors are backed out of the Bureau operating budgets, the levels overall across the Department are quite close to and in some instances higher than fiscal year 1988.

Senator REID. I think the committee is going to have trouble understanding why, at least on the surface, the funding hardships which are proposed elsewhere in the Interior Department aren't being borne by the secretarial offices. That is a question we have. We have given you some of the statistics we have. I think for the record you had better give us some more information.

Mr. VENTURA. We would be pleased to submit a much more detailed explanation for the record. As Mr. Trezise has indicated and as I earlier stated, a lot of that is due to the fact that our costs in the Office of the Secretary clearly reflect the increases for payroll and other costs.

[The information follows:]

Several points can be made to explain the increases in the Secretarial Offices as compared to those in the Bureaus:

One, when administrative costs alone are considered, the Secretarial Offices are requesting an increase of 8.3 percent compared to an overall 4.8 percent increase for administrative costs included within the totals of the Bureau budgets. This comparison counts the entire Office of the Secretary/Solicitor/Inspector General budgets as administrative costs. For the most part the Bureaus' administrative increases are for the same type of items for which increases are requested in the Secretarial Offices. These include such items as office space rent, postage, FTS, and commercial communications, and adjustments for full-year costs of pay increases. If one examines the composition of the increases, it is apparent that some of the increases in the Secretarial Offices are actually for the Bureaus or on their behalf and, therefore, distort the comparison. For example, in the Office of the Secretary, at least two of the proposed increases ($1.2 million to initiate restoration and repair of the historic main Interior Building and $0.5 million for the Productivity Enhancement Fund Program) fall into this category. In the Office of the Solicitor, $0.9 million is requested to fund personnel compensation and related costs for additional attorneys and support staff in support of the anticipated increase in legal work resulting from increased program responsibilities in the Office of the Assistant Secretary—Territorial and International Affairs, Assistant Secretary—Fish, Wildlife and Parks, Assistant Secretary—Water and Science, the Office of Inspector General, the Bureau of Indian Affairs, the Bureau of Land Management, the Minerals Management Service, and the Office of Surface Mining Reclamation and Enforcement.

If these three items are excluded from the request for Secretarial Offices, the comparison is 5.4 percent for the Secretarial Offices versus 4.8 percent for the Bureaus.

Two, a comparison of appropriation levels for fiscal years 1986, 1987, and 1988 reveals that Bureau appropriations have been approximately 18 percent more than the President's budget request, while the appropriations for Secretarial Offices have actually been on the average 1.5 percent less than the President's request. A similar trend is evidenced by comparing fiscal years prior to 1986. As a result, as the Department's programs have continued to expand, the Secretarial Offices' programs to provide direction, oversight and certain services (legal, audit, et cetera) have not. At some point additional resources are required to provide this support.

Three, if the fiscal year 1989 request for the Office of the Secretary is considered in terms of 1981 constant dollars, it is actually 0.5 percent less than the amount appropriated in 1981. In other words, when looked at in the context of adjusting for inflation, the Office of the Secretary funding levels have not increased since 1981.

## CONGRESSIONAL DIRECTIVES

Senator REID. On page 117 the budget states that the Office of Construction Management will be reviewing, prioritizing, and developing new construction projects in accordance with congressional directives.

We are confident that OMB Director Miller knows about this. Is that right?

Mr. VENTURA. That is correct.

Senator REID. There are some 44 Interior Department items under the jurisdiction of this subcommittee which are on the OMB hit list. The subcommittee is determined to see that its priorities are followed. The committee would like a detailed description of how the Department is going to carry out the directives of the Office of Management and Budget in this regard, because it seems that it would be a conflict with what Congress has already stated.

Mr. VENTURA. We will be pleased to submit a detailed description for the record. I assume that you are referring to the OMB concerns regarding report language.

Senator REID. Yes.

Mr. VENTURA. We are at this time in the process of requesting information from each of our Bureau Directors through our Assistant Secretaries to my office and to the Office of the Under Secretary in order to review the actions that will be taken by each of the Bureaus with respect to the report language. When that information comes to us we will discuss it internally and will certainly provide our information back to the subcommittee.

Senator REID. I have heard Senator Byrd say to other agencies coming before this committee that it is his feeling—and I think he speaks for the entire Senate, Democrats and Republicans—that the report language should be followed without any exceptions. We will watch closely to find out if that is the case.

The Secretary is coming before this committee on the 23d of next month. So we would like to know at that time.

Mr. VENTURA. I am sure we will have the information to you prior to that, Mr. Chairman.

## BUDGET SUPPORT FOR THE OFFICE OF THE SOLICITOR

Senator REID. Does the fiscal year 1989 Office of the Secretary budget reflect a reduction of the two full-time equivalents and the related dollars which were to be used to provide budget support for the Office of the Solicitor? And if so, on what page of the budget could we find this decrease?

If you don't know what it is now, would you provide it for us?

Mr. WHITEHEAD. It should be reflected.

Senator REID. Why doesn't the Office of the Solicitor budget show an increase in fiscal year 1989 to restore the funds deleted in fiscal year 1988?

Mr. WHITEHEAD. I assume that it is in a different place, Mr. Chairman.

Senator REID. When you provide that answer for us in writing, indicate where they got the money to make the change in 1988? Did we appropriate too much money? That is basically the question.

Mr. WHITEHEAD. Originally the function had been carried out in their budget directly, and when we proposed to transfer it to the Office of the Secretary, the funds would have still been in their budget; however, it would have been paid through the working capital fund to the Office of the Secretary. There would have been no net change in resource levels in the Solicitor's Office for that function.

### RESOURCE LEVELS

Senator REID. Mr. Ventura, you are requesting an additional $70,000 and one full-time equivalent for your immediate office. The 1989 budget, on page 53, states "The decrease previously anticipated in fiscal year 1988 for actual operating resource requirements for this office will not be realized."

Last year the budget, again on page 53, requested a decrease of $64,000 and one FTE "to more accurately reflect the actual operating resource requirements of the office."

Can you explain to the committee what is going on here? Was there a specific function associated with the reduction proposed in fiscal year 1988?

Mr. VENTURA. Mr. Chairman, the proposal to which you refer, to reduce one FTE, was submitted prior to my coming to the Department. Upon assuming my position I attempted to assess various responsibilities within my section of the Department, and have determined that in fact we do need that position.

Senator REID. Could you tell us what responsibilities are associated with that job? You say it is still needed, but for what?

Mr. VENTURA. It is a policy position needed within the Office of Policy Analysis. It was a position that the previous assistant secretary had attempted to reduce, which I feel is needed.

Senator REID. Is this within your immediate office?

Mr. VENTURA. Yes; that is correct.

Senator REID. In complying with our previous request to give us some additional information in writing, if you would be specific as to what the function of that position would be, it would be appreciated.

Mr. VENTURA. Yes, Mr. Chairman.

[The information follows:]

### ADDITIONAL STAFF FUNCTION REQUIRED

The request for one additional FTE in the Office of the Assistant Secretary—Policy, Budget and Administration [PBA] is needed to cover long-range planning and coordination. This additional position will allow PBA to focus on long-range policy issues of interest to the Secretary which are departmental in scope. The current level of staff resources in PBA allows us to concentrate only on short term, day-to-day issues.

## OFFICE OF POLICY ANALYSIS

Senator REID. You are requesting an additional $945,000 and six full-time equivalents in the Office of Policy Analysis to do additional work on environmental matters.

Describe the work that would be undertaken with this increase.

Mr. VENTURA. Mr. Chairman, actually that is going to be reduced from $945,000 to approximately $526,000. The balance will be directed to the reprogramming for the reorganization referred to in our letter of March 8 to the subcommittee.

What we hope to do with the $526,000 is to better organize or coordinate a great deal of the research currently at the bureau level in order to develop a departmental perspective. We do not intend to duplicate any of the research at the bureau level but merely to develop a departmental perspective on that research.

Senator REID. Why has this office been chosen rather than the Office of Environmental Project Review to carry out this initiative?

Mr. VENTURA. In fact, Mr. Chairman, the Office of Environmental Project Review is, in terms of reporting responsibility, within the Office of Policy Analysis, and a good deal of the dollars that we are requesting will be spread out between the two offices.

Senator REID. The budget shows 35 full-time equivalents for the Office of Policy Analysis. Are any of these positions detailed to other organizations within the Office of the Secretary?

Mr. VENTURA. Not at this time, Mr. Chairman.

Senator REID. Outside the Office of the Secretary?

Mr. TREZISE. Mr. Chairman, I believe there are three individuals on reimbursable detail to the Bureau of Indian Affairs.

Senator REID. We have heard one, two, or three. Will you give that to us in writing?

Mr. TREZISE. Yes, Mr. Chairman.

Senator REID. When you do this, if you would provide a listing of all 35 which include the grade, job title, and description of duties, the committee would appreciate that.

[The information follows:]

## Office of Policy Analysis

### List of Detailees from Office of Policy Analysis

Stephen A. Gleason: Reimbursable agreement with Assistant Secretary, Indian Affairs

Bernita A. Joyce: Fifty percent reimbursable agreement with Assistant Secretary, Indian Affairs

Frank H. Osterhoudt: Fifty percent reimbursable agreement with Assistant Secretary--Indian Affairs

### Director's Office

| | | | |
|---|---|---|---|
| 1. | ES 301-04 | Director | Directs the work of a professional staff of program analysts, policy analysts and economists. Coordinates Departmental initiatives on environmental and natural resource issues including global climate, acid rain, and hazardous waste. |
| 2. | ES 340-03 | Deputy Director | Coordinates, directs, and guides staff execution of office assignments. Leads cross-cutting projects such as employee housing study. |
| 3. | GS 341-11 | Administrative Officer | Monitors expenditures of the annual budget for the Office, assists management in all aspects of personnel and administrative matters. |
| 4. | GS 318-8 | Secretary | Serves as Secretary to Office of the Director and Deputy Director. |

### List of Positions in Office of Policy Analysis

### Deputy Assistant Secretary - Policy

| | Grade | Title | Description |
|---|---|---|---|
| 5. | ES 301-05 | Special Assistant | Provides general and specialized staff assistance on highly sensitive issues, and consultation and advice to all bureaus. Provides policy advice on Department initiatives to the Deputy Assistant Secretary, Policy and Analysis, the Assistant Secretary--Policy, Budget, and Administration, and the Office of the Secretary's staff. Conducts and directs complex policy analysis studies at the Departmental level. |
| 6. | ES 301-01 | Staff Assistant | Provides general and specialized staff assistance on highly important Departmental issues. Provides policy advice on Department initiatives to the Deputy Assistant Secretary, Policy and Analysis, the Assistant Secretary--Policy, Budget, and Administration, and the Office of the Secretary's staff. Conducts and directs complex policy analysis studies at the Departmental level. |

### Economic Analysis Staff

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|---|---|---|---|
| 7. | ES 110-04 | Assistant Director | Manages Economic Analysis Staff, identifying issues, setting priorities, supervising design and conduct of analysis and the presentation of results. Develops recommendations to the Assistant Secretary and Secretary. |
| 8. | GS 318-8 | Secretary | Serves as secretary to Assistant Director and staff. Keeps staff informed on administrative procedures. |
| 9. | GS 318-7 | Secretary | Serves as secretary to staff and correspondence control for legislation and determinations. |
| 10. | GS 110-15 | Economist | Specializes in the analysis of trends and patterns in policy and performance in land use management and Indian affairs. |

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|---|---|---|---|
| 11. | GS 110-15 | Economist | Specializes in the analysis of water resources policies using a variety of economic methods. |
| 12. | GS 110-15 | Economist | Specializes in the review of regulations and regulatory impact analyses, especially those having to do with hazardous wastes. |
| 13. | GS 110-15 | Economist | Specializes in financial and economic analysis of issues related to mineral leasing and royalty collection. |
| 14. | GS 110-15 | Economist | Specializes in economic analysis of environmental resources and policies including wetlands and endangered species. Serves as staff to the Cabinet-level Endangered Species Committee |
| 15. | GS 110-15 | Oper. Res. Analyst | Specializes in the use of statistical and operations research methods to the analysis of minerals leasing programs and policies. |
| 16. | GS 110-14 | Economist | Specializes in the economic analysis of oil and gas resource issues and valuation of environmental resources. |
| 17. | GS 110-13 | Economist | Specializes in the economic analysis of minerals policies and trade issues including development of nonenergy minerals offshore. |
| 18. | GS 110-13 | Economist | Specializes in economic and policy analysis of policies dealing with natural hazards such as earthquakes; has also focused on employee housing policy. |

## Program Analysis Staff

| | | | |
|---|---|---|---|
| 19. | GS 345-15 | Actg. Asst. Director | Manages a staff of analysts and directs and reviews staff work in the areas of MBO, legislation, regulations, correspondence and programmatic and policy issues. Also handles work related to the Minerals Management Service and coordinates the Secretary's MBO process. |
| 20. | GS 318-8 | Secretary | Coordinates control documents in the Office and other administrative documents. Lead secretary for the Staff. |
| 21. | GS 318-7 | Secretary | Secretary for the Staff and backup for the lead secretary |
| 22. | GS 345-15 | Economist | Analyst for Indian Affairs with a particular emphasis on issues concerning social welfare, education, and economic development. |
| 23. | GS 345-15 | Program Analyst | Serves as senior environmental advisor on issues affecting, and of interest to, the Department on acid rain, fugitive dust, emissions trading, and environmental permits. |
| 24. | GS 345-15 | Program Analyst | Serves as specialist in quantitative risk analysis and coordinates analysis of major programs. |
| 25. | GS 345-14 | Program Analyst | Analyst for Territorial Affairs and provides substantial technical assistance to the Bureau of Reclamation on issues concerning dam safety and irrigation drainage. |
| 26. | GS 345-14 | Program Analyst | Analyst for Geological Survey issues and covers issues concerning the effects of climate change on water resources. |
| 27. | GS 345-14 | Program Analyst | Analyst for Bureau of Mines issues and participates in work on Indian issues in the areas of education, economic development, and self determination. |
| 28. | GS 301-14 | Policy Analyst | Analyst for Bureau of Land Management and Fish and Wildlife Service issues. Also serves as a coordinator for the MBO process. |

| | | | |
|---|---|---|---|
| 29. | GS 345-13 | Program Analyst | Analyst for Bureau of Reclamation issues. Also active in a variety of other water issues including Indian water claims negotiations. |
| 30. | GS 345-12 | Program Analyst | Analyst for National Park Service issues. Involved in the Office's study of employee housing. |
| 31. | GS 345-9 | Program Analyst | Analyst for Office of Surface Mining issues and a coordinator for the MBO process. Participates in a variety of projects in the Office on an ongoing basis. |

### Special Analysis Staff

| | | | |
|---|---|---|---|
| 32. | ES 301-04 | Assistant Director | Directs special cross-cutting analytical projects. Fifty percent of time provides assistance on economic development natural resources and agriculture to tribes for Bureau of Indian Affairs. |
| 33. | GS 303-5 | Clerical Assistant | Provides secretarial support. |
| 34. | GS 301-14 | Policy Analyst | Conducts economic, statistical, and technical analyses of water (market transfers of water) and other natural resource policy issues. Fifty percent of time provides technical assistance to tribes on small business development, vocational programs for the Bureau of Indian Affairs. |
| 35. | GS 301-15 | Program Analyst | Reimbursable to Assistant Secretary--Indian Affairs for purposes of correspondence control and regulations oversight. |

## PRESERVATION OF MAIN INTERIOR BUILDING

Senator Reid. Your budget includes an additional $1.2 million for increased maintenance and preservation of the main Interior Building. You handed me this booklet earlier. Apparently the General Services Administration did not transfer sufficient funds when they turned over the management of the building to the Department. Is that right?

Mr. Ventura. That is not entirely correct, Mr. Chairman. A good deal of what we are proposing extends beyond general maintenance of the building. This is historic preservation. If you walk into the main lobby of the Interior Building, it is readily apparent that the mortar between the marble is beginning to deteriorate. This goes beyond normal maintenance. Our hope is to preserve the architectural character of the building before it deteriorates to a point where it will become necessary to expend a great deal more dollars.

Senator Reid. I think we should be doing more of this.

Mr. Ventura. I do too.

Senator Reid. I think that some of those beautiful buildings are not maintained as they should be.

Mr. Ventura. I agree with you, Mr. Chairman. The 22 murals that are referred to in this book are of particular concern to me. They are beginning to deteriorate and it is clearly not something that GSA could do. It is the type of activity that must be undertaken by a specially trained individual.

Senator Reid. Will any of the $1.2 million do anything with the murals?

Mr. Ventura. Yes; a good deal of the $1.2 million will be directed to the murals.

## ADDITIONAL COMMITTEE QUESTIONS

Senator Reid. We have some additional questions from Senator McClure and we will submit those to you in writing and you can answer those along with the others you need to complete for us.

Mr. Ventura. We will be pleased to answer any questions you may have.

Senator Reid. We appreciate very much your testimony here today. As I have indicated, we will have additional questions, and we ask you to promptly reply to those.

Mr. Ventura. Thank you, Mr. Chairman.

Senator Reid. Thank you very much.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Secretary's Immediate Office

In FY 1987, the amount provided for the Secretary's Immediate Office was specified in bill language. This language was dropped and an increase was provided in FY 1988.

For FY 1989 I note that you have requested essentially level funding of $1.7 million for the Secretary's Immediate Office (pg. 22).

Question: At this level will the Secretary's office be adequately funded?

Answer: Yes, the request of $1,726,000 for the Immediate Office of the Secretary for FY 1989 provides for the same level of operation currently required to manage the overall direction and coordination responsibilities of the Department. During the last year a new Under Secretary has assumed that position, vacating a position that Secretary Hodel had established - that of Chief Operating Officer. This new organizational arrangement, which has the Under Secretary functioning as the day-to-day manager of the Department, has rendered several supporting positions unnecessary.

Question: Do you anticipate any reprogrammings in FY 1988 into this office?

Answer: It is not anticipated that any reprogrammings will be necessary to fund this office during FY 1988. We appreciate, however, the Committee's actions regarding the removal of the dollar earmarking which provides the flexibility to reprogram if unexpected needs materialize.

### Office of Congressional and Legislative Affairs

You have requested an increase of $80,000 in FY 1989 for the Office of Congressional and Legislative Affairs (pg. 27). The majority of this increase ($68,000) is to fund increased staff costs. While you anticipate an increase in the number of hearings for FY 1989, the broader workload data on page 26, however, does not indicate a substantial increase.

Question: How many positions are involved and what are the respective positions you envision?

Answer: The request for additional funds in FY 1989 will fund staff support for an additional Deputy for House Liaison.

Question: What will the increase allow the Department to do in FY 1989 that it did not in FY 1988?

Answer: Last year, the office's House Deputy took extended maternity leave. During that period another staff member from the Office of the Secretary assisted in those duties. During the Deputy's absence, the Congress began consideration of a number of complex issues affecting the Department, including ANWR. These issues have had such a high and broad level of Hill interest that continued assistance is necessary in order to meet our responsibilities to the Congress. Because we foresee an ongoing need for this assistance, we request additional funding for FY 1989 to continue this position.

### Equal Opportunity Office

An increase of $167,000 (+14 percent) has been requested in FY 1989 for the Office of Equal Opportunity. This increase is for three additional positions with the goal of requiring EEO staff and program managers in the Department to become more proficient in reducing the number of complaints and therefore the costs associated with complaints processing (pg. 32).

At the end of FY 1988, you anticipate the Department will have 344 open cases and 76 cases at EEOC pending hearing.

Question: If this increase in funding is approved, how much do you anticipate the workload to decrease?

Answer: A decrease in processing time and an increase in efficiency are expected by taking measures to accelerate the skills and knowledges of the OEO and Bureau staffs. Through training and technical assistance, proposed dispositions that are pending will be decreased by 25%, and 50% of the existing caseload will be eliminated. Because the Department has no control over the cases pending hearing before the EEOC, the volume of active cases will not necessarily decrease. However, these newer complaints will be handled more expeditiously, efficiently and effectively - with an anticipated decrease in processing time of 25%.

Question: Can you elaborate on some of the "technical competencies and efficiencies" you mentioned in the justification?

Answer: The OEO has developed an ambitious and aggressive program to make the Office and Bureau EEO staffs more proficient and competent in meeting the new requirements placed on the program by the EEOC as well as to develop and implement initiatives to strengthen the Department's implementation of its civil rights responsibilities under Title VI and Title VII.

The EEO Counselors program will be strengthened through intensive, formal training which will improve the Department's counseling services and assist in the early and equitable resolution of complaints. A DOI Counselor's Handbook and Training module are under development to meet this objective. Managers and supervisors will be trained regarding their responsibilities in the area of EEO. The goal is to prevent complaints by developing the participation, knowledge and awareness of the Department's managers and supervisors. There will be an increase in the number of training opportunities to provide technical assistance and guidance in both Title VI and Title VII, which will bring about a higher level of performance and more expeditious and efficient handling of complaints.

There has been an increase of management reviews in FY 1988 which has provided valuable information for management and program improvement. Evaluations will continue in FY 1989, resulting in policy development, guidelines, and improved oversight of the Department's implementation, enforcement, and management of its civil rights functions.

The OEO will put considerable emphasis on the final development, implementation and monitoring of the FY 1988-92 Affirmative Employment Program Plan in order to identify and eliminate barriers to representative employment of minorities and women throughout the Department.

During FY 1989, a concerted effort will be launched to remove the deficiencies of accessibility for disabled persons which have been identified in the recently conducted Section 504 self-evaluations and Transition Plans. Staff coordinators will administer OEO's oversight responsibility in monitoring the corrective actions and ensuring that self-evaluations are conducted for all new programs and activities introduced in the Department.

## Small and Disadvantaged Business Utilization

You have requested an additional $106,000 (+25 percent) and two positions to provide the additional effort expected when the "Minority Business Act of 1987" is passed. This legislation is currently pending before a House/Senate conference committee.

In addition, the increase is necessary to implement P.L. 99-499, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Question: Can you elaborate on some of the increased requirements?

Answer: Provisions in the Minority Business Development Act of 1987 will require agencies to revise procedures to permit the transfer of technology or property owned by the United States to 8(a) firms. Other provisions in the bill will require agencies to develop revised contracting procedures and revised SBA appeals procedures. It will also be necessary for the Department to develop revised 8(a) pricing policies and enhanced outreach and marketing assistance for bureaus and 8(a) firms. This bill will also increase the role of the Office of Small and Disadvantaged Business Utilization (OSDBU) in 8(a) contractor selection.

The requirements of P.L. 99-499 (CERCLA) are new and were not previously anticipated by the Department. The Act requires the consideration of the availability of qualified minority firms in awarding contracts under the Act. An annual report must be submitted to Congress detailing the involvement and participation of minority firms in such contracts awarded with Superfund monies. In order to implement the new provisions in this act, the Department will need to enhance its outreach program and begin development of Departmental policies and procedures for data collection and analysis.

While much of the impact of the legislation will occur in the operating contracting offices in the bureaus, experience has shown that bureau performance in the small business program is usually in proportion with the amount of oversight and technical assistance provided by OSDBU. At the present time oversight and technical assistance are at a minimum level. Concurrently, goal accomplishments have begun to slip. In order to fully comply with the intent of this new legislation, the additional resources will be required in FY 1989.

Question: Is this increase similar to other Departments?

Answer: We have no specific information on similar requests by other departments. We have been told that the Departments of Energy and Defense and the General Services Administration have either requested additional resources or have already allocated resources to these areas.

## Assistant Secretary - Policy, Budget and Administration

The Assistant Secretary for Policy, Budget and Administration is the only assistant secretarial office which you have requested a funding increase for FY 1989 (pg. 53).

The 9 percent increase proposed for FY 1989 is to restore a decrease previously anticipated in FY 1988 for actual operating resource requirements for this office which will not be realized.

Question: What assumptions did you make in proposing this reduction last year and is there a particular reason you are giving up on realizing this reduction before the end of the fiscal year?

Answer: This reduction was proposed before by the former assistant secretary. If any reductions in duties in the office were anticipated, they did not materialize. We have currently assessed the various responsibilities within the office and have determined that the position is needed. The position will cover the long range planning and coordination function. The specific duties entail focusing on long range policy issues of interest to the Secretary which are departmental in scope.

Question: Did any of the other assistant secretarial offices request an increase in FY 1989 that is not provided in this budget?

Answer: The other assistant secretarial offices did not request an increase in FY 1989.

Question: Do you anticipate any reprogrammings in FY 1988 into any of these offices?

Answer: In the normal course of events we would expect minor increases or decreases in these offices. These will be reflected in our quarterly reprogramming reports if they occur. We do not anticipate that any reprogrammings will be necessary requiring prior approval of the appropriations subcommittees.

## Acquisition and Property Management

You have requested an increase of $250,000 and five positions for the Office of Acquisition and Property Management. This increase is to provide for negotiating indirect cost rates with departmental contractors. The justification indicates that responsibility for this function is proposed for transfer from the Office of the Inspector General to the Office of the Secretary because the Department feels this is a management responsibility and not an audit responsibility.

In reviewing the Inspector General's budget I see an anticipated workload decrease on page 13 but I only see a budgetary decrease of $142,000.

Question: Why is there a difference between the amount you are requesting and the I.G. is reducing?

Answer: The Office of the Inspector General (OIG) has been using approximately five (5) FTEs to perform the ongoing indirect cost negotiation work but has accumulated a backlog of 92 cases waiting to be processed. An increase in the number of proposals is also expected, particularly from newly recognized Indian tribal organizations and from local agencies that have not previously submitted proposals due to inadequate accounting systems and procedures.

The OIG requested two additional positions to eliminate the workload backlog and to accommodate the projected workload increase. OMB, in the passback process, asked that the function be recognized as a management responsibility and transferred from the OIG.

Two (2) FTEs will be retained by the OIG to maintain its audit oversight of this function and the OIG will transfer to the Office of the Secretary three (3) FTEs and $142,000 for salaries and related costs. The additional $108,000 in costs in the Office of the Secretary budget relates to the two (2) additional FTEs previously requested by the OIG.

Question: In the FY 1988 justification, the I.G. anticipated work on 255 indirect cost proposals in FY 1987. Your FY 1989 justification indicates that the number of proposals was actually 223 yet you still anticipate that this number will increase to 400 by FY 1990. Is there a reason you anticipate the workload to increase when the most recent data (FY 1987) suggests a decrease?

Answer: The number of proposals processed by the OIG in its most recent year was 223 but there was also a backlog of 92 unprocessed proposals which have not been negotiated. The 400 number refers to the number of potential clients who may submit a proposal. Many do not submit proposals because the indirect costs are minimal or are otherwise recovered and many have not submitted proposals to date because their accounting systems were not adequate to support the proposals. Substantial growth is expected in the proposals received from Indian tribal units and from local governments as they develop better accounting systems as part of the single audit process. Our staffing request is based on the number of proposals actually expected to be received and the existing backlog of unprocessed proposals.

## Administrative Services

You have requested an increase of $250,000 (+18 percent) in FY 1989 for Administrative Services (pg. 77). This increase is four additional positions to allow adequate accomplishment of the audit coordination, resolution, and follow-up functions and enhance the timely implementation of audit findings and associated resources recovery.

The justification reads as if you weren't following audits?

Question: Is that accurate?

Answer: The Department has been following both GAO and Inspector General audits very closely. With only two fulltime employees for audit resolution and follow-up, however, we can do a limited amount of work, especially in audit follow-up.

Question: What will you be doing in FY 1989 that you weren't in FY 1988?

Answer: The additional employees would be used to reduce the constant backlog and the time it currently takes to resolve disputes between auditors (OIG or GAO) and the organization audited. This will allow better coordination of our responses to GAO and Inspector General audits to ensure there is proper agreement and that consistent policies are established for those audit recommendations that affect more than one bureau. They would monitor, more closely and completely, the implementation of audit recommendations. This would be accomplished by onsite verification and by more timely followup on the deadlines set in audit action plans.

Contracting and grant officers will be trained so they understand what is expected of them when they are called on to render a determination on audit findings. It is our belief that such training will result in more consistent results and reduce the time for resolution of audit report findings.

Audit followup responsibilities will be formally incorporated into management plans and position standards for Department managers, contracting officers, grant officers, and other employees whose duties require actions in response to audit reports.

## Management Analysis

In FY 1987, the Office of Management Analysis developed policy and procedures for a new program designed to finance low-cost, high-payback productivity improvement projects which will also serve as a "feeder" for the overall Productivity Improvement Program. This new program is called the Productivity Enhancement Funding Program and is a pilot program in FY 1988. During FY 1988 it is designed to encompass 21 projects funded by the Bureaus during the first year.

In FY 1989, you have requested an increase of $500,000 for this new program (pg. 83).

Question: How much was provided in FY 1988 for the pilot program?

Answer: In FY 1988, 21 projects were approved for inclusion in the program and the bureaus committed funds totaling approximately $600,000 for fiscal year 1988.

Question: What have you seen so far in FY 1988 to merit an increase in FY 1989?

Answer: Over 140 projects were proposed by employees in response to our first call for proposals. Many good proposals that showed a high potential for significant returns on investment were rejected at the bureau level because the bureaus did not have sufficient resources to fund the projects.

The approved projects have generated much enthusiasm among employees. Although the participation was encouraging from most bureaus, some bureaus did not participate. We hope that matching funds will provide the incentive for more aggressive bureau participation.

It is too early in the program to provide reliable estimates of savings from the initiatives, since most projects are just getting underway. However, we have estimated that if these projects are successful, over $11 million will be saved over the next three years, making the return on investment more than ten to one.

## Office of Policy Analysis

You have requested a 50 percent increase (+945,000) for the Office of Policy Analysis in FY 1989. The increase is designed to be more responsive to Congressional and Executive Branch concerns on environmental protection and to address emerging issues such as those associated with climate change (pg. 92).

Question: What will the Department be able to accomplish with this increase that it cannot currently accomplish? Besides being more responsive, what will be the function of this office? Data collection? Research? How did you arrive at this level of proposed funding for FY 1989?

Answer: The funds of $945,000 were originally requested under the Office of Policy Analysis but a portion, $419,000, is required in FY 1989 to sustain the level of activity approved in the recent PBA reprogramming action. In FY 1989 the $419,000 is needed for the Office of Budget (budget execution) - $174,000; Security and Drug Enforcement (director and secretary) - $118,000; and AS/PBA (Deputy Assistant Secretary for Policy and Analysis and secretary) - $127,000.

The remaining amount of $526,000 will be needed in the Office of Policy Analysis; $360,000 will be for salaries and benefits and $166,000 will cover contracts. There is an emergence of a number of highly technical environmental and natural resource issues that present a significant new concern for policy officials and managers. Specific examples of these issues are global climate change, solid and hazardous waste, and air and water quality. These funds will augment the present capabilities of the Office with scientific and technical expertise to address long term issues that affect more that one bureau and to cover broad Departmental goals.

The Department believes it can best approach these issues on a coordinated Department-wide basis. We need a few people at the Department level who have the background to communicate easily with our experts in the bureaus and who can translate specialized science into broader policy and management issues and implications. We would of course continue to rely heavily on our excellent resources in the Geological Survey, the Fish and Wildlife Service, the Bureau of Mines, the Park Service, the Bureau of Reclamation, and other bureaus for most of the technical work.

## Preservation of the Main Interior Building

The National Park Service recently completed a detailed preservation case study entitled, "The Interior Building: Its Architecture and Its Art". It appears that this case study has led the Department to request an additional $1.2 million in FY 1989 to provide for increased maintenance and preservation of the Main Interior Building.

Question: Could you elaborate on your plans for the Main Interior building? Please provide for the record the long term restoration needs of the building and your plans to correct them.

Answer: The Interior Building was listed in the National Register of Historic Places in November 1986 in recognition of its architectural and historic significance. Based on the National Park Service study and a more recent indepth inspection, the most critical needs of the Interior Building have been identified and are the basis of the Department's request for $1.2 million in FY 1989 as part of a 5-year plan for preservation of the historic and cultural features of the structure. The $1.2 million in FY 1989 would be used to contract with an architectural firm to prioritize necessary preservation work on the building as part of a phased plan, including preparation of estimates of construction costs. We will undertake the most critical items of conservation work identified, including but not limited to repointing, repair of damaged stone, limited masonry cleaning, and conservation of exterior bronze work (doors, urns, decorative elements).

The physical condition of the building's 22 WPA murals will be assessed and recommendations prepared for conservation of those murals. Restoration of the 22 murals will then be undertaken. The Department museum will be refurbished and revitalized including conservation and rehabilitation of the exhibits and collections.

A training course will be developed for building managers, mechanics, and maintenance staff on the correct methods of maintaining the diverse historic features of the building, and a maintenance manual will be prepared.

When the prioritized preservation work and associated cost estimates have been identified, it will be possible to formulate the remainder of the phased work necessary for the long-term restoration need of the building.

## OFFICE OF THE SOLICITOR

### STATEMENT OF RALPH W. TARR, SOLICITOR

ACCOMPANIED BY:
- HOWARD H. SHAFFERMAN, DEPUTY SOLICITOR
- DAVID A. WATTS, ACTING ASSOCIATE SOLICITOR, CONSERVATION AND WILDLIFE
- THOMAS L. SANSONETTI, ASSOCIATE SOLICITOR, ENERGY AND RESOURCES
- NANETTE R. EVERSON, ASSOCIATE SOLICITOR, GENERAL LAW
- M. DENNIS DAUGHERTY, ASSOCIATE SOLICITOR, INDIAN AFFAIRS
- CAROL A. CLANCY, ASSOCIATE SOLICITOR, SURFACE MINING
- THOMAS E. ROBINSON, ASSOCIATE SOLICITOR, AUDIT AND INVESTIGATION
- JAMES RODDEN, DEPUTY DIRECTOR OF ADMINISTRATION

#### PREPARED STATEMENT

Senator REID. We will now turn to the Office of the Solicitor.

The budget request for the Office of the Solicitor is $25,325,000, an increase of $2,272,000, or 9.9 percent over 1988.

Mr. Ralph Tarr, the Solicitor, will be the principal witness.

Mr. Tarr, your opening statement will be made part of the record at this point. If you will introduce your associates and briefly summarize your statement, we will then proceed to questions.

[The statement follows:]

## STATEMENT OF RALPH W. TARR

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to appear before you to discuss the Fiscal Year (FY) 1989 request for the Office of the Solicitor.

Our request for Fiscal Year 1989 totals $25,325,000 and 373 full-time equivalent positions (FTEs). This is an increase of $2,272,000 and 20 FTEs above our FY 1988 Appropriation and $1,995,000 and 15 FTEs above our FY 1989 base. The increase includes $277,000 and 5 FTEs for base adjustments and $1,995,000 and 15 FTEs for programmatic increases. The base adjustments consist of: increased Workers Compensation Payments ($126,000); increased rental payments to GSA ($76,000); increased costs of the January 1988 pay increase ($321,000 & 5 FTEs); increased costs associated with Executive and clerical pay raises ($80,000); increased administrative costs for commercial telephone charges, postage costs, Federal Telecommunications costs, the Departmental Working Capital Fund ($82,000) and a reduction for FERS costs ($408,000).

We are requesting a programmatic increase which includes $1,995,000 and 15 FTEs. This amount includes $932,000 and 15 FTEs to fund personnel compensation and related costs for additional attorneys and support staff in support of increased legal activities anticipated in fiscal year 1989. We are also requesting an additional $1,063,000 to provide this Office with the funds necessary for adequate support of its employees.

Since I became Solicitor in December of 1985, at the urging of this Subcommittee, it has been my goal to present to this Committee a budget request that adequately reflects the cost of operating the Office of Solicitor. I fully concur in what I perceive to be the Subcommittee's desire that the Office operate soley on funds specifically appropriated to it. This approach permits better management of my Office and facilitates your decisions regarding appropriations within the Department as a whole. In the recent past, for various reasons, the Office had faced financial circumstances that required us to reduce employment levels or allow undesired attrition; freeze overtime, promotions and training; restrict incentive awards and travel; and postpone or reduce the purchase of law library subscriptions and legal books; and to accept funding for some of these activities from our "client" bureaus within the Department.

Starting with fiscal year 1987, we have operated out of our own appropriation, although in that year we had to reduce our FTEs to 337, a level we could support. As a result, our fiscal year 1988 request to this Subcommittee was for 370 FTEs and $24.7 million, an increase of 16%; or $3.9 million over the FY 1987 enacted. During hearings last year, I indicated that the request increased as it did because it fully reflected the cost of operating the Office of the Solicitor.

Accordingly, the fiscal year 1989 budget request for the Office of the Solicitor provides adequate funding for 373 FTEs and their related costs. This budget request includes the funding necessary for the Office to fully support its personnel and the level of legal activities we are called upon to provide to the Department. It would permit us to retain and support an adequate level of personnel with salaries and benefits, promotions and merit awards, an adequate level of travel, equipment, current law books, training, and the like, necessary to continue to deliver the high quality of legal service our "clients" within the Department require to carry out their programs.

Thank you for your consideration, Mr. Chairman. I will be happy to answer any questions from the Subcommittee.

## BIOGRAPHY OF DAVID A. WATTS

David Watts joined the staff of the Solicitor's Office in 1963. In the mid-1970's he assumed the duties of the Assistant Solicitor for Parks and Recreation, Division of Conservation and Wildlife. He has assumed the duties of Acting Associate Solicitor for the Division of Conservation and Wildlife since July 1987.

Mr. Watts received law (1962) and undergraduate (1959) degrees from the University of Michigan and is a member of the Minnesota Bar.

## BIOGRAPHY OF THOMAS L. SANSONETTI

Tom Sansonetti joined the staff of the Division of Energy and Resources as Associate Solicitor on May 26, 1987.

Starting in 1976, Mr. Sansonetti practiced law in Gillette, Wyoming--first as a sole practitioner, then as a partner in the law firm of Sheehan, Stevens & Sansonetti. He worked on legal matters involving corporate, municipal, and natural resource law as well as litigation at both the trial and appellate levels. An active member of the Wyoming State Bar, Mr. Sansonetti is also admitted to practice before the United States Court of Appeals for the District of Columbia Circuit, the Tenth Circuit Court of Appeals, and the United States Supreme Court.

Mr. Sansonetti graduated from the University of Virginia with a B.A. in Foreign Affairs in 1971 and the University of Virginia's M.B.A. program in 1973. He received his Juris Doctor from Washington Lee University in 1976 where he was president of the law school student body. He was a finalist in the White House Fellowship competition in 1982 and 1983.

## BIOGRAPHY OF NANETTE R. EVERSON

Nanette Rutka Everson was appointed on March 15, 1988, as Associate Solicitor for the Division of General Law. Previously on February 9, 1986, Mrs. Everson was appointed by Attorney General Edwin Meese III as Special Counsel to the Assistant Attorney General in charge of the Civil Division in the U.S. Department of Justice.

Mrs. Everson is a Phi Beta Kappa, Magna Cum Laude graduate of Yale College. She attended the University of Michigan Law School in her home town of Ann Arbor, Michigan and after graduation held a federal judicial clerkship with Judge Thomas A. Clark of the United States Court of Appeals for the Fifth Circuit.

Mrs. Everson first joined the Reagan Administration in 1984 as Deputy Associate Director of Presidential Personnel in The White House, where she advised the Administration on the selection of federal judicial nominees. Prior to that, she was associated with the firm of Miller, Canfield, Paddock and Stone in Detroit, Michigan, from 1981 until 1984.

## BIOGRAPHY OF M. DENNIS DAUGHERTY

Dennis Daugherty was appointed Associate Solicitor for Indian Affairs March 28, 1988.

Immediately prior to his appointment, Mr. Daugherty was Legal Counsel and Special Advisor to the Chairman of the Occupational Safety and Health Review Commission where he served since October 1985. He represented his agency in the Administrative Conference of the U.S. and served on its Judicial Review Committee.

Mr. Daugherty was Legislative Assistant to former Congressman David C. Treen (R.-La.) 1974-80 and then later served as Director of Federal Relations for the State of Louisiana 1980-82 when Mr. Treen was governor. He represented the Governor on the Staff Advisory Committee of the National Governors'

Association Committee on Energy and the Environment and was Deputy Director of the Governor's Office of Intergovernmental Relations.

Mr. Daugherty was with the Legal Services Corporation from 1982-85, serving as Director of Government Relations, Vice President and finally Secretary of the Board.

Mr. Daugherty received his Juris Doctorate degree from the Louisiana State University School of Law in 1973 and began his law practice with the Lake Charles, Louisiana firm of Camp, Carmouche, Palmer, Carwile and Barsh. He is a member of the Louisiana State Bar Association and admitted to practice before the United States District Court for the Western District of Louisiana and the United States Supreme Court. He is a former Outstanding Committee Chairman of the Federal Bar Association and is listed in Who's Who in American Law.

## INTRODUCTION OF ASSOCIATES

Mr. TARR. Thank you, Mr. Chairman.

Sitting next to me is James Rodden, the Deputy Director of Administration for the Office.

I also have with me today Mr. Howard Shafferman, the Deputy Solicitor; Mr. David Watts, the Acting Associate Solicitor for Conservation and Wildlife; Mr. Thomas Sansonetti, Associate Solicitor for Energy and Resources; Mrs. Nanette R. Everson, Associate Solicitor for General Law; Mr. Michael D. Daugherty, Associate Solicitor for Indian Affairs; Ms. Carol Clancy, Associate Solicitor for Surface Mining; and Mr. Thomas Robinson, Associate Solicitor for Audit and Investigation.

## OPENING REMARKS

If I could just very briefly make the bottom line point to you, Mr. Chairman, about the nature of our request. I deeply appreciate the opportunity to come before you today and explain that to you.

What we are basically asking for is the same level that we asked for last year. Last year's level of request was based on an effort by me to bring within the Office's budget all of the expenses that go into funding the Office.

When I first came to the Office about the early part of fiscal year 1986, the Office had squeezed out of it all of the money that was otherwise going to buy new books, promote employees, allow people to travel to various places to get the job done. All of the discretionary money had been squeezed out and there was basically a larger number of people hired to meet the FTE level authorized in fiscal year 1986.

In order to fund that operation, it was necessary, and it was the practice when I came into the Office, of accepting travel money and other types of support, including the funding of some positions by other parts of the Department. Through the budget cycle for fiscal year 1987, it became quite clear to me that the committees would prefer that the Office be funded totally out of its own appropriation. I carried that message to the Department and last year's fiscal year budget was an effort to fully reflect that same level of personnel but fully supported by our Office's budget.

Basically, we are back asking again for that level, notwithstanding the fact that our workload continues to increase as a result of a number of new acts that are passed from time to time, particularly in the procurement area. There are some very definitive deadlines in the Competition in Contracting Act and the GSA BCA procurement provisions whereby our lawyers have to respond on definitive deadlines, which means we have to take them off other matters and put them on those things.

We have increasing general stream adjudication activity in the West and a number of States in the West are starting general stream adjudications, which require a good deal of effort on our lawyers' parts to participate in negotiations.

We are seeing hazardous waste become a much more significant factor in the work that we do in the Department. I have organized a task force in the Office of the Solicitor to work together and be trained to deal with these issues for the clients and attempt to get the Department a little farther out in front.

There are a number of other areas that I could mention where our workload is increasing, but we feel that this level that we have requested will put us more in line with the overhead aspect of the Department.

Thank you, Mr. Chairman.

### KENTUCKY SETTLEMENT AGREEMENT

Senator REID. I appreciate that explanation.

I would like to begin the questioning with a discussion of the major legal challenges to the activities of the Department and get an understanding from you about what is on the horizon.

For example, the State of Kentucky entered into a settlement agreement with the National Wildlife Federation this past winter for a comprehensive surface mining inspection and mitigation program. The Department isn't a party to that suit, but it is my understanding that its implications could have been very expensive for the Department. What support did your Office provide to the Office of Surface Mining related to this suit, and is it reasonable to expect that the settlement of this suit will lessen the legal support needed in the future for programs in Kentucky and elsewhere for OSM?

Mr. TARR. Our Office was quite involved in the discussion that took place in Kentucky. There was some effort on the part of the litigants in that case to come to a resolution which the Department assisted in by participating in the negotiations. We had one of our lawyers working a good part of his time on that matter.

What we were facing in the Kentucky situation was not a potential reduction, but a rather sizable increase in the amount of resources we would have required. If the Department had been required to take over the 2-acre enforcement in Kentucky, it would have required us to put on people to basically take the place of what the State is doing now. As you know, there was a heavy emphasis on the general theme of the act, which is State primacy, and that is the basis of the negotiated settlement.

We will be having to face about 2½ or 3 positions worth of work, probably, out of that settlement in further support of the State's enforcement efforts, but it is something we feel we can absorb within the request that we are talking about here.

### BUREAU OF RECLAMATION REORGANIZATION

Senator REID. The committee understands that the Department has proposed a change of emphasis for the Bureau of Reclamation. How will this shift affect the legal support requirements from the Office of the Solicitor next year and the following years?

Mr. TARR. That is very difficult to assess at this point. As the chairman knows, the major portion of the Bureau of Reclamation is moving to Denver, CO, and we are still trying to determine how our Office will be organized in order to best support them.

Given the fact that a number of the higher level officials will remain in Washington, my Assistant Solicitor for Water and Power, which is the main day-to-day support for the Bureau, will remain in Washington, and it is my expectation that probably we will have to provide someone of a slightly higher level than may be there now in Denver to provide the day-to-day support for the folks in Denver.

The Bureau's focus, as far as I can tell, may not have a reducing effect on our workload; it simply will be a different kind of practice. There still is the full implementation of the Reclamation Reform Act of 1982 involved, and we are actively involved in the auditing that is going forward in that process. That will be a rather extensive and time-consuming effort to assist the Bureau in auditing the reports and determining the legal issues that may be involved.

## OUTER CONTINENTAL SHELF SALE 91

Senator REID. What are some of the major legal battles that lie on the horizon? For example, the OCS leasing program. Have you budgeted something in support of the Department's planned sale No. 91 off northern California? Give us kind of a brief synopsis of what you expect in the way of legal problems in the future.

Mr. TARR. In terms of the OCS, I don't identify sale No. 91 as more than a blip on the screen in terms of the level of support we provide to the OCS effort. There is litigation, as you know, on the 5-year plan that has been filed by, I think, six States. Florida having dropped out of that lawsuit, it is now five.

There will continue to be a challenge to virtually every action of the Department by one group or another because, as you might expect, we are a Department that has very interested constituency groups who keep quite close tabs on what we do.

## SOLICITOR'S OFFICE BUDGET FUNCTION

Senator REID. On the subject of the Solicitor's budget office, it is my understanding that you have decided to keep that function in your Office.

Mr. TARR. Yes, sir; we have.

Senator REID. Isn't this a change of heart, and if so, why?

Mr. TARR. It is not a change of heart necessarily on our part. I had not been in favor of that change, because I have found in the Office of the Solicitor that we kind of fall through the cracks if we don't have that kind of support in our Office. That change was made last fiscal year. When we went to the Department's Budget Office and said now is the time for us to start getting service, there was some second thinking in their office about whether or not they wanted to provide that service out of their office.

As was discussed in the previous session, that difference in funding is worked out through the working capital fund so that we will not be charged through the working capital fund for the same level that we would have been had they been providing the service.

### FUNDING FOR PROMOTIONS

Senator REID. The budget requests $175,000 for promotions. Do you have any idea how many that will fund?

Mr. TARR. I can't give you the number at this point. We can provide it for the record.

Senator REID. We need to know also the GS grade of those employees that will be promoted. What is the current average grade for the Office of the Solicitor? Do we know that?

Mr. TARR. I don't know that, but we do have the distribution in our justification that we have provided to the committee.

Let me say that one of the problems in our Office is that because of the tight budget situations over the last 3 fiscal years or so there have not been new hires in the Office, and as a result we have tended to not have that entry level infusion that changes the balance. With regard to the people that I felt I could authorize hiring at the end of last fiscal year and the start of this fiscal year, I have given the directive to my managers that they are to hire only entry level people.

The request that you mentioned there for promotions is something that would reflect the yearly normal career track as people move and develop.

Senator REID. When you are giving the information we previously requested, I would also be interested in the average grade for the office for each of the last 5 years. You have already explained that it probably doesn't really reflect what it should be.

[The information follows:]

### PROJECTED PROMOTIONS

The Solicitor's Office request for $175,000 will fund 38 GS and GM promotions. Projected promotions are as follows:

| Estimated GS/GM promotions | Number of promotions | Cost of salaries and benefits |
|---|---|---|
| GS–14 to GS 15 | 1 | $4,037 |
| GS–13 to GS–14 | 5 | 40,629 |
| GS 12 to GS–13 | 7 | 49,770 |
| GS–11 to GS–12 | 8 | 49,888 |
| GS–7 to GS–8 | 2 | 4,583 |
| GS–6 to GS 7 | 4 | 8,504 |
| GS–5 to GS–6 | 4 | 7,842 |
| GS–4 to GS–5 | 4 | 7,275 |
| GS–3 to GS–4 | 3 | 2,478 |
| Totals | 38 | 175,006 |

## GS AND GM AVERAGE GRADE LEVELS

The average grade level for the Office remained at the GS–11 level for calendar years 1983 through 1987.

## COMPUTER-ASSISTED LEGAL RESEARCH

Senator REID. The budget proposed an additional $50,000 for computer-assisted legal research. Is this like Westlaw?

Mr. TARR. Yes; that helps us in not having to put quite as much emphasis on fixed library services in each of our 20 offices around the country.

Senator REID. There is another bigger one. What is it called?

Mr. TARR. There is Lexis and the Justice Department's system is called Juris.

Senator REID. Who can tie into Juris? Can private firms tie into it?

Mr. TARR. I think to some degree they allow that to happen. There are parts of it that are available only to the Justice Department. It is an information base that has different types of windows in it that you can get into.

## TRAVEL

Senator REID. Last year Congress provided $300,000 for an increase in travel. Your budget shows that in fiscal year 1987 actual travel expenditures were $258,000 and are estimated in fiscal year 1988 to be $716,000. The move to Denver didn't create all that, did it?

Mr. TARR. No; maybe I could explain that for you. The $700,000 figure was part of our request that was commensurate with the additional positions that we were not provided. As far as what we spent last year, last year we were faced with additional overhead costs because of pay raise increases and the FERS program of about three quarters of a million dollars.

What we had to do last year was to fund as many people as we could while watching our travel expenses. But for the supplemental that was passed with about 2 months left in the fiscal year, we were right on the line of making our ends meet. That number over the years has been considerably collapsed in terms of what it needs to be.

## ADDITIONAL COMMITTEE QUESTIONS

Senator REID. I appreciate very much your testimony. We have some additional questions from Senator Mc Clure that we will submit to you, and if you could respond as promptly as possible, that would be appreciated.

Mr. TARR. We will be happy to, Mr. Chairman. Thank you.

Senator REID. Thank you.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Associate Solicitor Positions

Question: In viewing your organizational chart on page 1, I note that half of the Associate Solicitor positions are vacant. I know this budget was put together several months ago but I am curious to know whether these positions are still vacant? How long have they been vacant? When do you anticipate filling those positions?

Answer: The organizational chart has been revised since the submission of our justification. Except for the Associate Solicitor position for the Division of Conservation and Wildlife, an appointment for which is currently in progress, all of the positions are filled. The names and divisions of the Associate Solicitors are as follows:

| | |
|---|---|
| Nanette R. Everson | Division of General Law |
| Thomas E. Robinson | Division of Audit and Investigation |
| Carol A. Clancy | Division of Surface Mining |
| M. Dennis Daugherty | Division of Indian Affairs |
| Thomas L. Sansonetti | Division of Energy and Resources |

Question: The same chart indicates that all of the Regional directorships are filled. Is that still the case? If not, what are your plans to fill those positions?

Answer: The Regional Solicitor position for the Pacific Southwest Region has recently become vacant. We have advertised and expect to fill this position in the very near future.

### Implementation of CERCLA

Question: One of the priorities you have established for your office will be to provide the Department with services concerning the implementation of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). What sort of work do you foresee for your office in this area?

Answer: The Office has an increasing workload in providing legal services to client agencies on CERCLA matters. The Office will advise agencies on how to carry out affirmative responsibilities under CERCLA. For example, we will assist the agencies in completing preliminary assessments and site investigations under section 120 for sites on the federal facilities docket. The Office will also participate in reviewing and updating natural resource damage regulations under section 301 of CERCLA. The Office will assist agencies in amending regulations and developing guidance documents where needed to carry out responsibilities for lands and natural resources in a manner that meets the requirements of CERCLA and reduces risks of agency liability. For example, the Office will assist the Bureau of Land Management to develop strategies concerning CERCLA responsibilities for mining, mineral leasing, mill sites and landfills on public lands, for making land acquisitions and for making land transfers under section 120(h). The Office will assist in developing guidance on the creation of administrative records to support agency decisions under section 113(k) of CERCLA. We also will continue working with the Environmental Protection Agency, the Department of Justice and other federal agencies to develop regulations and define responsibilities applicable to federal facilities. The Office expects increasing requests from the Department of Justice for assessments of natural resource damages on actions brought by Justice under its CERCLA authority. There will be increased litigation pertaining to sites where Interior is a potentially responsible party. Finally, the Office will assist agencies in responding to releases of hazardous wastes at federal facilities and in carrying out appropriate response actions.

### Royalty Product Valuation Regulations

Question: The justification indicates that implementation of the new comprehensive royalty product valuation regulations issued in January of this year will require defense of challenges. What is the status of any challenges? Do you feel there will be challenges on issues in untested areas?

Answer: Several lessees have challenged aspects of the product value regulations for oil and gas. The case, ANR Production Co. v. Hodel, CIV 88-0045, is pending in Federal District for the Western District of Louisiana. It raises two issues in what could be called "untested areas." Specifically, it challenges the different treatment the regulations afford to arm's length and non-arm's-length sales contracts and the regulation's treatment of "percent-of-proceeds" contracts as sales of processed gas. Other challenges may follow.

### Reclamation Reform Act--Regulations

Question: Your office continues to provide legal assistance to the Bureau of Reclamation to implement the rules and regulations promulgated under the Reclamation Reform Act (RRA). What is the status of these efforts?

Answer: By about the first of June 1988, the Bureau of Reclamation plans to publish proposed regulations implementing the December 1987 amendments to the Reclamation Reform Act. The Solicitor's Office has participated in the preparation of these proposed regulations. Final regulations are expected to be published in September 1988.

### Reclamation Reform Act--Section 203(b) Litigation

Question: The justification indicates that of major significance to your office in FY 89 will be the defense of expected litigation associated with implementation of Section 203(b) of the RRA regarding "collection of full cost pricing and enhancement federal revenues from water projects." (pg. 3 and 56). What effort do you anticipate from your office in future years in this area?

Answer: The plaintiff water districts in Peterson, et al. v. United States, Civil No. S-85-1644-RAR (E.D. Cal. decided July 14, 1987), have appealed to the Ninth Circuit. We will assist the Justice Department in briefing the appeal and conducting oral argument. We may also be forced to bring suit against water recipients subject to section 203(b) who fail to pay full cost charges.

Question: What are you currently doing with state, local and private entities to respond to minimize this potential problem?

Answer: The Bureau of Reclamation has repeatedly advised water districts whose recipients are subject to section 203(b) of their obligation to collect full cost charges.

Question: Has the Bureau requested you to draft any additional legislation in this area?

Answer: No. We are not drafting additional legislation.

### Land Certification Issues

Question: When do you anticipate resolution of the land certification issues (pg. 3)?

Answer: The Bureau of Reclamation set May 2, 1988, as the date that all 1987 certification and reporting forms were due to avoid full cost charges for water delivered in 1987. Landowners who have not filed both 1987 and 1988 forms are ineligible for water in 1988.

### American Revolution Bicentennial Administration Claims

Question: The Office of Hearings and Appeals (OHA) is reviewing the audits of the American Revolution Bicentennial Administration (ARBA) Claims as they are completed by the Office of the Inspector General (pg. 31). After OHA makes recommendations to the Secretary on proposed compensation, the Solicitor will provide advice and counsel to the Secretary. Have any of these claims moved through the process in FY88? When do you anticipate the bulk of them to move?

Answer: The Director of the Office of Hearings and Appeals has been given the authority to decide on compensation of the claims. The Director will complete his review of all 12 claims by June 1, 1988.

### Bureau of Reclamation--Reorganization

Question: Your justification indicates that the Bureau of Reclamation is in the process of reorganizing from an agency based on federally supported construction to one based on effective and environmentally sensitive resource management (pg. 61). The Solicitor's Office has been assisting in the "exploration, formulation and review of efforts designed to accomplish this endeavor." What type of activities are you looking for the Bureau to perform?

Answer: We are advised by the Bureau that it expects to become more involved in such activities as: transferring operation and maintenance responsibilities to water user organizations; transferring title to facilities; and working with state and local governments, private sector interests, public interest groups, Indian nations and regional organizations to combine technical skills and financial support in joint efforts to resolve natural resource issues.

Question: How do you see the Bureau evolving over the next few years?

Answer: We are advised that the Bureau expects to become more of a resource management agency that deemphasizes capital-intensive construction projects involving significant capital expenditures and emphasizes improving efficiency, optimizing use of existing facilities, reducing Federal financial obligations, shortening repayment periods, limiting nonreimbursable investments and entering into planning, funding and management arrangements with non-federal entities.

Question: Has any consideration been given to having the Bureau involved in the cleanup of Superfund sites either inside or outside of the Department?

Answer: There is currently a memorandum of understanding between the Bureau and the Environmental Protection Agency (EPA) which allows EPA to use the engineering, scientific and other technical capabilities of the Bureau in support of the Superfund program. To date, the Bureau has provided limited technical services consisting of design and construction reviews.

With regard to Interior, the services and capabilities of the Bureau are generally available to other bureaus in Interior if and when needed. In addition to cleanup of sites associated with the Reclamation program, there are some cooperative efforts underway between the Bureau and the Bureau of Mines and the Geological Survey.

### Funding of Operations

Question: In the past, part of the operations of the Office of th Solicitor has been funded by your "clients." Does the FY 1989 budget proposal reflect full funding of your operations? What recent legislative enactments have created additional legal workload? Why did your actual Fiscal Year 1987 FTE usage fall below the level reflected in the appropriation for that year?

Answer: Prior to fiscal year 1987, due to the limited amount of funds available to support a substantial number of attorneys, clients funded certain operations of the Office of the Solicitor, such as travel by attorneys to work on client activities. During the hearings on the FY 1987 budget, the Solicitor perceived the Congress' desire to be that the Office fund its operations solely out of its own appropriations. The Solicitor agreed strongly with this approach, and immediately implemented it as beneficial to the integrity of the appropriations process and to his management of the Office. Due in part to increased pay raise costs and additional costs due to the new retirement program, the Solicitor decided that a staffing level of 337 FTEs in FY 1987 could be fully supported within the Office's appropriation. Further, the Solicitor's agreement with this approach resulted in the preparation of fiscal years 1988 and 1989 budgets reflecting the true costs (salaries, benefits, travel, incentive awards, books and subscriptions, etc.)

of providing legal services at an FTE level consistent with authorized levels in the recent past. Indeed, a comparison of the budget requests submitted for fiscal years 1986 through 1989 reveals a relatively constant FTE level in a period of increasing workload (due to legislative enactments, etc.) but the fiscal years 1988 and 1989 requests entail higher dollar amounts reflecting the full cost of supporting these FTEs.

Consistent with these realistic requests, the Office is holding fast to its policy of not receiving client funding. Of course, when the amount appropriated does not match the level requested (as occurred in FY 1988), the FTE level must be reduced to a supportable amount. Increased legal workload has resulted from the implementation of the Program Fraud Civil Remedies Act of 1986, the Single Audit Act of 1984, the Compacts of Free Association, the Federal Onshore Oil and Gas Leasing Reform Act of 1987, Fee Waiver Amendments to the Freedom of Information Act, the Federal Technology Transfer Act of 1986, Amendments to the Reclamation Reform Act of 1982, and the Comprehensive Environmental Response, Compensation and Liability Act, as amended by the Superfund Amendments and Reauthorization Act of 1986, among other legislative enactments.

## Obligations Under Superfund

Question: What steps have you undertaken to assist the Department in its efforts to meet its obligations under the Superfund statute, as amended?

Answer: The Solicitor's Office has created a Superfund Task Force comprised of attorneys who deal with Superfund issues for each of the bureaus within the Department.

The Task Force coordinates hazardous waste and Superfund information, guidance, and advice Department-wide so that all of the bureaus are acting consistently and responsibly regarding Superfund requirements, for example, the federal facility provisions of CERCLA section 120. During the past year the Office has provided advice regarding the land transfer requirements of section 120(h), the liability provisions of section 107, and the site inventory, docket and Preliminary Assessment/Site Investigation requirements of section 120. The Task Force is working closely with representatives of the Environmental Enforcement and Environmental Defense sections of the Department of Justice to exchange information regarding the Department's compliance with section 120 and its responsibilities as a natural resources trustee. Attorneys within the Solicitor's Office are working closely with client agencies regarding actions to be taken on National Priorities List (NPL) and non-NPL sites where the agencies have been notified by EPA, states or private parties of their potentially responsible party status of study sites. Last year, we worked with the Bureau of Land Management to settle a case brought by the State of New Mexico against the Department for a landfill from which releases of hazardous substances were occurring. We also worked with the Bureau of Mines to settle another case brought by a private party against the Bureau regarding an NPL site contaminated with radioactive waste in Denver, Colorado, caused by Bureau activities in the early 1900's. We recently entered into a Memorandum of Understanding with EPA for cleanup of this site.

## Executive Order on Governmental Actions and Interference With Constitutionally Protected Rights

Question: The President recently signed an executive order on takings by executive branch agencies. What steps is the Office of the Solicitor taking to implement this order?

Answer: As you know, the President signed the Executive Order on Governmental Actions and Interference with Constitutionally Protected Property Rights on March 16, 1988. The purpose of that Order is to assist federal departments and agencies in undertaking reviews of their actions to prevent unnecessary takings, and in proposing, planning and implementing actions with due regard for the constitutional protections of the Fifth Amendment.

The Order requires each department to identify the takings implications of proposed actions in proposed rulemakings and legislative proposals to Congress, and in submissions to the Office of Management and Budget.

Departments are also called upon to identify existing rules and regulations against which a takings award has been made or a claim is pending, and to submit to the Office of Management and Budget an itemized compilation of all awards of just compensation for takings against the department or agency.

The Department of the Interior is currently compiling the takings information requested under the Executive Order. Our Office is assisting in the preparation of this information and will take a lead role in the execution of the President's direction to implement fully the Constitution's provisions respecting private property rights.

## OFFICE OF THE INSPECTOR GENERAL

## STATEMENT OF JAMES R. RICHARDS, INSPECTOR GENERAL

**ACCOMPANIED BY:**

**JOYCE N. FLEISCHMAN, DEPUTY INSPECTOR GENERAL**
**HAROLD BLOOM, ASSISTANT INSPECTOR GENERAL FOR AUDITS**
**THOMAS T. SHEEHAN, ASSISTANT INSPECTOR GENERAL FOR INVESTIGATIONS**
**WILLIAM L. DEAN, ASSISTANT INSPECTOR GENERAL FOR ADMINISTRATION**

### PREPARED STATEMENT

Senator REID. The next organization scheduled to appear this morning is the Office of Inspector General.

The fiscal year 1989 budget request for the Office of Inspector General is $18,816,000, an increase of $1,059,000, or 6 percent.

Mr. James Richards, the Inspector General, is our principal witness today.

Mr. Richards, the opening statement that you previously submitted to the committee will be included in the record in its entirety. If you will introduce your colleagues who are seated behind you, we will then proceed to questions.

[The statement follows:]

## STATEMENT OF JAMES R. RICHARDS

Mr. Chairman, members of the Subcommittee, I thank you for the opportunity to discuss the proposed fiscal year 1989 budget for the Office of Inspector General. As you know, this office was created under the Inspector General Act of 1978 to promote economy and efficiency and to detect and prevent fraud and abuse in the Department's programs and operations. We also provide a means to keep the Department's heads and the Congress fully and currently aware of problems and deficiencies uncovered by our audit and investigative efforts.

Our budget request for fiscal year 1989 is $18,816,000. This is a net increase of $1,059,000 above fiscal year 1988. This increase is primarily requested to support three vital requirements.

First, three additional positions, at a combined cost of $162,000, are requested to handle our increasing work load associated with processing audits of state and Indian governments as required by the Single Audit Act. This work load has increased by about 60 percent due to the growing number of single audit reports issued by independent accounting firms concerning entities for which the Interior Department is cognizant, and the related quality control reviews of audit work papers performed by our staff. The quality control reviews are required for any audit reports issued by independent auditors on state and Indian governments.

Second, we are requesting an additional $532,000 to increase the number of audits of contracts performed on a reimbursable basis by organizations such as the Defense Contract Audit Agency. This increase would enable us to obtain approximately 10 staff years of audit coverage above present levels, to meet a growing number of contract claim audits and to provide more timely and rigorous audits of contractor proposals. We believe this increase is justified by the potential for greater amounts of reported cost exceptions, and the issuance of timely contract audit reports to management that thoroughly address all elements of contract claims, costs, and proposals.

Third, we are seeking an additional $270,000 which represents five additional agent positions. These agents will be used to meet the recently enacted statutory requirements of Public Law 99-509, the Program Fraud Civil Remedies Act, which provides for the imposition of civil monetary penalties and assessments against persons who submit false claims and statements of less than $150,000 to Federal agencies. The Act specifically designates the Inspector General as the investigating official in these cases; however, without additional agents, we would be placed in the position of having to absorb the increased work load and fulfill our criminal investigative mission without a corresponding increase in investigative personnel. The remainder of the increase is to cover the added administrative costs associated with the additional positions requested for Audits and Investigations.

Our budget request for fiscal year 1989 reflects the transfer to the Office of the Secretary of $250,000, or five audit positions, associated with the indirect cost negotiation function. We will continue to provide audit coverage of departmental indirect cost matters.

Our audit emphasis in fiscal year 1989 will continue to be reviews of all aspects of the Department of Interior, including the management of coal leasing and minerals royalty collection efforts; administration of programs by the Bureau of Indian Affairs and tribal governments; the financial management systems and revenue-producing activities of the territorial governments and the emerging nations of the Federated States of Micronesia, Republic of the Marshall Islands and the Republic of Palau; selected water projects; administration of the National Park Service; management of Federal land and wildlife; and single audits over which our office has cognizant and collateral oversight and responsibility.

Our audit effort continues to significantly impact on Departmental programs, activities and management functions. For the 6-month period ended September 30, 1987, we reported a total audit related dollar impact of $156 million, which included $86 million in potential recoveries and $41 million in cost avoidances. Additionally, 364 recommendations were made to management to improve departmental programs, operations and mission effectiveness. Also, our auditors assisted on 9 investigations during that 6-month period that resulted in 35 indictments.

Regarding our responsibilities in the U.S. Territories, we opened a suboffice in Saipan during fiscal year 1987 composed of three auditors and one investigator. Our presence has helped meet Departmental and Congressional concerns about the integrity of financial management and government operations in the Commonwealth of the Northern Marianas. Prior to the end of this fiscal year, we will begin audits in the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau.

As noted in my statement last year, the results of audit followup reviews conducted to analyze the adequacy and timeliness of actions taken by the bureaus to resolve and implement significant audit recommendations were not encouraging. We reported that management had not implemented corrective actions which had been agreed to for 47 percent of the recommendations reviewed. As a result, we have established an audit followup section to conduct reviews on a continuing basis, and the new Assistant Secretary for Policy, Budget and Administration, has revitalized the Department's Audit Followup Committee. We are working with the Assistant Secretary and his staff in an attempt to solve these problems.

In accordance with our efforts under the provisions of the Federal Managers Financial Integrity Act of 1982 and Office of Management and Budget Circular A-123, we have completed reviews of various aspects of the Bureau of Reclamation's payroll and personnel system, and are currently reviewing the Bureau of Mines accounting system. Reviews are also planned in fiscal year 1988 for the three bureaus in Land and Minerals Management--the Bureau of Land Management, the Office of Surface Mining, and the Minerals Management Service. For fiscal year 1989, reviews are planned for the National Park Service and the Fish and Wildlife Service. An accounting system review is also planned for the Bureau of Land Management.

Investigations will continue to focus on the most serious allegations of criminal or fraudulent activity in the Department's programs and operations, while referring less serious and administrative matters back to the appropriate bureaus for their review and action, subject to our oversight. As noted in our budget submission, Investigations has had an exceptionally productive year for the third year in a row.

This trend continues in fiscal year 1988 as evidenced by the recent indictment of two Wall Street arbitrage bond brokers for bribery in the $300 million Guam Economic Development Authority housing bond issue. Our small investigative staff has averaged

70 indictments per year for the past 3 years with an inventory of pending cases that remains at about 350. Current work load completely absorbs investigative capacity and will continue to do so for the foreseeable future. The most dramatic evidence of this can be seen by considering the number of cases in the investigative process at any given time. For instance, at the time this statement was prepared, there were 43 cases either in the grand jury or trial process and for any given day in the past year that figure would vary by no more than plus or minus 10 percent. We continue to handle this work with about 50 people.

This concludes my statement. I will be glad to answer any questions that you may have.

## BIOGRAPHY OF WILLIAM L. DEAN

Assistant Inspector General for Administration

William L. Dean was appointed Assistant Inspector General for Administration for the Office of Inspector General, Department of the Interior in April, 1988. Prior to his appointment, he had served as Deputy Assistant Inspector General for Administration since joining the Department of Interior in September, 1981. From July, 1978 to September, 1981, Mr. Dean served as Director of the Personnel Management Staff for the Office of Inspector General, Department of Agriculture.

Mr. Dean was born on October 31, 1940, in Quincy, Florida and attended Florida State University. He resides in Laurel, Maryland, with his wife Juanita.

## INTRODUCTION OF ASSOCIATES

Mr. RICHARDS. I have with me my deputy, Ms. Joyce Fleischman; my Assistant Inspector General for Administration, Mr. Larry Dean; my Assistant Inspector General for Audits, Mr. Harold Bloom; and my Assistant Inspector General for Investigations, Mr. Tom Sheehan.

Senator REID. Would you care to summarize your testimony? If you don't care to, we will go directly to questions.

Mr. RICHARDS. I don't think it is necessary for me to summarize. I think you have summarized it in your introductory remarks.

## SPACE AND PAY COSTS

Senator REID. Your budget requests an increase of $148,000 for GSA space costs, a total of $944,000. This is an increase of 18.6 percent. The comparable figures for the Offices of the Secretary and Solicitor are much, much smaller, 2.7 and 3 percent respectively. This is requested as a base increase and therefore should only include rate increases related to existing employees and existing office space.

Why is it that your costs are going up so dramatically?

Mr. RICHARDS. I will have to supply that for the record, frankly. I can only estimate that probably 1½ years ago when we opened our new office in Saipan it became rather expensive.

Senator REID. Give us whatever detail is necessary, because that is a dramatic increase.

Mr. RICHARDS. Sure. I agree it is, and I will be interested in the explanation myself.

[The information follows:]

## SPACE COSTS

The initial base estimate of $944,000 for fiscal year 1989 space costs included additional square footage over the 1989 base. This additional square footage should not have been included as a base increase but rather as a program increase. A more recent analysis, using fiscal year 1988 square footage as the fiscal year 1989 base and the fiscal year 1989 estimated GSA rate, shows our base for GSA space to be approximately $576,000 and our base for departmental space to be approximately $292,000 for a total of $868,000. This represents a 9-percent increase over the fiscal year 1988 estimate. The total required for space in fiscal year 1989 including programmatic increases is $889,000.

## GSA SPACE COSTS

Senator REID. Are the GSA space costs included in the standard level user charges line of the object classification schedule?

Mr. RICHARDS. Yes; they are.

Senator REID. Would you explain, then, why on page 28 of your budget these costs are $732,000 in 1987, $533,000 in 1988, and $702,000 in 1989?

Mr. RICHARDS. Again, we will have to explain that for the record.

Senator REID. We would like you to do that.

[The information follows:]

## SPACE COSTS DEFINED BY OBJECT CLASS

The total of all space charges was displayed in object class 23, standard level user charges, prior to fiscal year 1988. Beginning with fiscal year 1988, we displayed the GSA space charges that we pay directly to GSA in object class 23 and the GSA space charges that we pay to the Department in object class 25, other services.

The $732,000 for fiscal year 1987 includes both the GSA space charges and the departmental space charges. The $533,000 in object class 23 for 1988 is for GSA space charges only. An additional sum of $264,000 for departmental space is in object class 25 for a total of $797,000 for space charges for fiscal year 1988. Object class 23 for 1989 should have been $576,000 for GSA space charges only. An additional sum of $292,000 should have been for departmental space in object class 25, for a total of $868,000 for space charges in our base for fiscal year 1989. In total, the Office of Inspector General is requesting $889,000 for space charges in 1989, which is spread between object classes 23 and 25 and which includes the GSA rate increase of $71,000 and $21,000 requested to cover the cost of providing space for the additional audit and investigative staff that we have requested for fiscal year 1989.

## INCREASED PAY COSTS

Senator REID. Your budget requests an additional $291,000 for increased pay costs in fiscal year 1989. The fiscal year 1988 cost of the pay raise is $178,000.

The offices of the Secretary and the Solicitor require 33 percent more in 1989 than in 1988 to cover these costs. Why does the Office of Inspector General require an additional 64 percent in 1989?

Mr. RICHARDS. We will have to supply that also, Mr. Chairman.

[The information follows:]

### INCREASED PAY COSTS FOR FISCAL YEAR 1989

The $291,000 was an early estimate for increased pay costs for fiscal year 1989. A more recent estimate of $237,000 was developed at a later date, but not in time to be incorporated into the fiscal year 1989 justifications. The $237,000 estimate is a 33-percent increase over the fiscal year 1988 request of $178,000.

### CONTRACT AUDITS

Senator REID. We are on a roll here.

Mr. Richards, I understand that you are requesting an additional $532,000 for contract audits and that these audits result in considerable savings to the Government. Is that correct?

Mr. RICHARDS. Yes; it is.

Senator REID. The budget, on page 17, states that "due to budget limits, our expenditures for contract audits declined by 62 percent from 1982 to 1987." Committee staff informs me that the fiscal year 1982 appropriation for the inspector general was $13 million-plus and that in fiscal year 1987 it was almost $17 million.

Looking at the numbers, it looks as though the reduction for contract audits is not so much a function of budget limits as it is one of priorities since audit funding went down 62 percent at a time when your budget was increasing by 25 percent.

Mr. RICHARDS. Historically, the funds to cover the cost of contract audits were included as part of our general authorization for audits. You are correct. Basically, it is a matter of prioritization.

Historically, when we received requests for contract audits we attempted to use DCAA where DCAA has cognizance for these reimbursed audits. However, we recently have received more requests for contract audits where DCAA does not have cognizance. So basically it is a matter where we use internal resources to do those contract audits.

You will notice that our cost exceptions over the years have gone up because we have devoted more internal resources to do those contract audits. Our studies show that basically when we do these contract audits with internal resources we get a better product than when we contract with DCAA because they do that as an adjunct to their other main defense work.

Senator REID. Thank you for your testimony, Mr. Richards.

The subcommittee will have to stand in recess. I have to go over to the Senate. We were expecting another Senator and he will be here momentarily.

If the Navajo and Hopi Relocation Commission and the Institute of American Indian and Alaska Native Culture and Arts Development would remain in the immediate area, we will complete this hearing this morning. In the meantime, the committee stands in recess pending the call of the chair.

[A brief recess was taken.]

## NAVAJO AND HOPI INDIAN RELOCATION COMMISSION

**STATEMENT OF HAWLEY ATKINSON, CHAIRMAN**

**ACCOMPANIED BY:**
**RALPH A. WATKINS, JR., VICE CHAIRMAN**
**SANDRA MASSETTO, COMMISSIONER**
**CHRISTOPHER J. BAVASI, EXECUTIVE DIRECTOR**
**MICHAEL J. MCALISTER, DIRECTOR, MANAGEMENT**
**PAUL TESSLER, ATTORNEY**

### INTRODUCTION OF ASSOCIATES

Senator DECONCINI [presiding]. The subcommittee will come to order.

We will now turn to the Navajo and Hopi Indian Relocation Commission.

Mr. Chairman, you can summarize your statement if you like. Based on past experiences, it is better if you don't read your statement.

Mr. ATKINSON. Mr. Chairman, I would like to introduce Ralph Watkins, the Vice Chairman of the Commission; Chris Bavasi is Executive Director; Sandra Massetto is a Commissioner; Mike McAlister is our administrative officer; and Paul Tessler is our legal counsel.

### PREPARED STATEMENT

We will not summarize. We will just put our statement in for the record and be here for the questions.

[The statement follows:]

## STATEMENT OF HAWLEY ATKINSON

My fellow Commissioners and I, as well as our staff members, appreciate the opportunity to appear here today. As has been the case for the last several years, there have been a great many major activities affecting the Relocation Commission since we last appeared before you. We would like to take this opportunity to summarize the progress made on several major projects during the last year. All of these projects have been the result of Congressional direction in one form or another.

Approximately two years ago, the House Committee on Appropriations raised a concern regarding the living conditions of those individuals who had removed themselves from the Hopi Partitioned Lands and were awaiting relocation benefits. Based on the concerns voiced in a series of hearings during that year, as well as specific Committee report language, the Commission undertook a complete survey of the approximately 1,100 relocatees in this category. The initial survey was completed in less than 90 days and results were available prior to last year's Appropriations Hearing. Subsequently, the Commission has established a procedure of updating this survey information on a tri-annual basis. The information has now been fully computerized and is being utilized to determined the priority status of individuals in this category and to coordinate the timing of their relocations with the other competing priorities. These priorities which are a result of Congressional direction during the last few years, as well as the Commission's original statutory mandate, include HPL residents, District Six Evictees and emergency moves. We are submitting to the Committees today, a complete computer printout of the results of this survey and a categorization of the priority listings for these individuals. Additionally, you will note, in the reports we are submitting, the number of people from this category who have relocated since the initial concern with this population was raised.

During the last year, the Commission also completed the necessary programmatic and procedural changes required as a result of the involvement of the Bureau of Indian Affairs in the relocation program approximately two and one-half years ago. The Commission was directed by the Committees to adhere to a legal opinion from a Department of Interior Solicitor which resulted in the Commission's discontinuing the addition of the appraisal value for property acquired from relocatees to their basic housing benefit amount. In compliance with that legal opinion, the Commission now determines the appraisal amount and adds to it a benefit amount sufficient to provide a decent, safe and sanitary house within the statutory limitations for the maximum benefit.

The change in calculation of client benefits, in regard to the appraisal values, combined with the per capita infrastructure amount being expended by the Bureau of Indian Affairs on the New Lands, dictated that the Commission re-evaluate its position on the payment of infrastructure for clients not moving to the New Lands. In response to this need, the Commission has altered its procedures to provide for an infrastructure payment, under the provisions of our Discretionary Fund authority, in addition to client benefits, for moves both to the existing reservation and non-reservation lands. The Administration and the Committees of jurisdiction were kept apprised of these changes as the new procedures were developed. Since the Fiscal Year 1988 budget had been submitted prior to the finalization of these new procedures, it was necessary for the Commission to submit a request for reprogramming of 1988 funds from the Housing category into the Discretionary Fund category to underwrite the expense of infrastructure under this new process. This reprogramming request was submitted and approved and the Commission is proceeding under the new process at this time.

As a result of the findings of a recent audit on the Commission's operation by the Department of Interior Inspector General, the Commission was directed to review the files of all individuals certified for relocation benefits who had not yet relocated. The purpose of this review was to assure that all such individuals had been certified in accordance with law and regulations. This was an extremely time consuming project, and the initial review of 1,450 files was completed during Fiscal Year 1988. This review resulted in substantiation of the original decision on 1,139 clients. Of the remaining 311 casefiles, which required more detailed review, Commission staff has determined that there are approximately 60 cases which may not have been certified in full compliance with regulations. These individuals will have full appeal rights under the Commission's appeal regulations, if the final review results in a denial. 193 of these cases have been cleared and approximately 90 cases remain which the Commission is still soliciting additional information on and on which final decisions should be forthcoming within the next three months.

The issue of the quality and quantity of water available on the New Lands has been of concern to the Commission and to Congress for the past four years. During that period of time the Commission has contracted for several water studies which have all demonstrated that the aquifers being utilized to supply water on the New Lands are of sufficient quantity and quality to fully justify the continuation of planning and development on

the New Lands. There continues to be, however, concern about the Rio Puerco alluvium as a result of the tailings spill from the Churchrock Mine in the late 1970's. In response to this continuing concern, the Commission has entered into a Memorandum of Understanding with the United States Geological Survey for a five year study of the impacts of that tailings spill on the Puerco alluvium and aquifer and possible communication of any detrimental impacts to the aquifers which are being utilized on the New Lands. The Commission is committed to funding thirty percent of this project, under its Discretionary Fund authority, for the next five years. At the Commission's request, the USGS has modified its scope of study to insure that the potential impact on any aquifer currently in use, or planned for future use, on the New Lands, is thoroughly addressed. Additionally, there will be a health risk assessment included in this final report at the Commission's request.
In late 1987, Senator McCain, accompanied by staff members from both the Senate and House Authorizing Committees, made a fact finding trip to the Navajo Reservation and to the New Lands. Based on that trip the Commission was notified that there were concerns regarding the living conditions of individuals awaiting relocation in the Tuba City area. This population is a sub-group of individuals mentioned in the survey above but appeared to be of sufficient concern to the Committee that the Commission initiated a specific study for Tuba City residents. Commission staff made a personal site visit to each of the approximately 120 relocatees living in the Tuba City area and compiled information regarding their housing conditions and the health conditions of the various family members. Based on the information, obtained the Commission will be prioritizing these individuals for expeditious relocation as a sub-group to the individuals for whom the House Committee placed an additional $3,000,000 in our 1988 budget. We have with us today, for your review, the compilation of this information which includes actual photographs of the individuals' housing and a summary of their living conditions.

Approximately two years ago, the Commission submitted proposed reauthorization language addressing its need for additional funds in the housing and bonus payment categories. This submission also included additional language regarding the Discretionary Fund to provide for unmatched expenditures for infrastructure projects while retaining the requirement for matching funds for governmental and tribal projects other than basic infrastructure. Senator McCain has introduced a series of amendments to this reauthorization bill and as the members of this Committee are undoubtedly aware, the Commission has testified at two hearings on this matter during recent months. The Appropriation

Committees have been provided with copies of both the Administration position, and a supplementary document on these amendments.

The Senate Select Committee on Indian Affairs has scheduled a markup on this legislation for Thursday, April 28, 1988. It is the Commission's understanding that there may be additional amendments introduced at that time. The Commission will continue to provide the Appropriation Committees with copies of any correspondence sent to the authorizing Committees as consideration of this legislation continues.

The Commission provided an extensive historical review of all of the major issues concerning relocation at the 1988 Appropriations Hearings. With the exception of changes in program statistics, on which the Committee receives monthly updates, this document remains current and is being resubmitted for the record.

In closing, Mr. Chairman, we would like to point out that all of the activities mentioned in our opening statement should be considered outside of the Commission's normally anticipated workload. This additional work was completed while maintaining our normal activities. There was some decrease in our program accomplishment statistics as a result of the need to await final decisions on some of these major procedural changes. These changes, necessitated by Congressional instructions, included such things as the certification review, the change to the benefit calculation procedures and the change in the method of calculating and funding individual infrastructure costs. However, by and large, the same level of normal program activity was maintained throughout this period of time. We believe the Commission staff is to be commended for absorbing all of these additional tasks while essentially maintaining our same level of production.

Mr. Chairman, that concludes our formal statement to the Committee. The Commissioners will be pleased to respond to any questions which you may have at this time.

## SUPPLEMENTAL STATEMENT

Originally Prepared - March 1987
Resubmitted for the Record - April 1988

It is an important time for the relocation program and we would like to take this opportunity to speak openly and forthrightly with you at this juncture in the course of implementing the Relocation Act.

The Relocation Commission has moved every relocatee family for which the

Congress has appropriated funds. As of the end of February, the Commission has completed relocations for 1,133 families. We have received appropriations totaling $129,625,000. In addition to the acquisition of replacement homes, the Commission has utilized some of these funds to provide infrastructure projects on the Navajo reservation in cooperation with the Indian Health Service. During the last four years, this Committee has appropriated the full $15 million housing authorization level and the Commission has expended that amount in each fiscal year. At this point, there are approximately 1,500 families certified eligible for benefits who have yet to be relocated, of which 1,000-1,100 are unfunded.

Reinventing the wheel at this stage would be cruel in the sense that it would postpone resolution of the problem and continue to wreak havoc on the lives of the families involved. We believe that if Congress were to abandon the ten year old course upon which we have embarked and supplant it with some other scheme, that those opposed to any settlement will continue to resist. We will be back in the same position we are today, which is an apparent inability of the government to see its policy through. We think it would be unjust to deny the Hopi Tribe a fair settlement after they have prevailed in the courts and in the halls of Congress and complied with the requirement to remove their tribal families from the area of controversy. There must be a political will to complete this program, to provide benefits to all those who have been certified eligible, and to put an end to this century long controversy.

## Relocation Controversy

When we last appeared before you in February 1986, the impending July 7, 1986 deadline overshadowed the program. We applaud the efforts of the Appropriation Committees to clarify the issue of potential evictions on that date. We can tell you that your efforts, along with those of the BIA and the Commission, contributed to a peaceful passing of that deadline and the implementation of a rational and reasonable substitute approach. Your language made clear that families will not have to vacate their homes on the HPL until the Federal Government makes replacement homes available.

We would be less than candid if we did not point out that we have been sitting in the hot seat, attempting to implement a statute which we did not write and have not been able to change. It is a unique task that has faced the Commission and one that has never been popular. The Relocation Commission has become the lightening rod for all of the criticism resulting from Congress' decision to utilize relocation as a solution to this century long dispute.

Mr. Chairman, we are not at liberty to ignore the current law on the real or suspected promise that some new law will be passed which cancels or postpones relocation. That is what has been urged upon us by some parties in this dispute. I will remind the Chairman that since 1975, there has been an annual campaign to repeal this law or considerably alter it. If we let these proposals dictate our actions nothing will get done and we would be violating our oath of office. Congress did not charge the Commission with evaluating the wisdom of its decision in passing Public Law 93-531. We are charged with implementing the law.

The people whose lives are most impacted seem to have been forgotten in all of this. The rumors, innuendo, changes in policy and the persistent failure to keep promises have caused great anxiety among those who must relocate. Their lives have been continuously kept off balance. The exaggerations and mis-statements perpetuated by outside forces such as the Big Mountain Legal Defense/Offense Committee add to the confusion. In various years, funds have been limited to different groups of eligible relocatees resulting in the present backlog of 1,200 families who no longer live on the Joint Use Area who are awaiting benefits. The FY 1987

Appropriations Act directed the Commission to review the eligibility of all those who had not yet received benefits and to decertify if necessary. Needless to say, this has caused considerable anguish on the part of those who have relied on the word of the government that they are eligible for relocation benefits. Also, in this year's Appropriations Act, the method for computing housing benefits was changed after nine years of the program. This means that individuals who relocate after the passage of the FY 1987 Act will receive a different level of housing benefit through no fault of their own, other than the passage of time. We point these events out, Mr. Chairman, only to illustrate the confusion and contradictions which have marked the history of this program.

This program has been under considerable attack from outside forces who support the repeal of this legislation. Considerable resources have been marshalled from all over the country to frustrate the efforts of the Government to complete this program. For the last several years, the Commission has been subject to numerous investigations and audits which have been, in part, a result of misrepresentations from these forces. They have obscured the real issue, which is to complete this program in an expeditious manner in the most humane way possible.

This program has been under attack from its inception. The Navajo Tribe has long sought to persuade the Congress to repeal Public Law 93-531. The two Tribes have essentially waged war in the Congress on an annual basis and the Congressicnal instructions contained in the appropriations reports and bills reflect this. This agency has been audited, investigated and scrutinized by every imaginable law enforcement agency and government watch dog from the FBI, and the GAO to the Department of the Interior's Inspector General's office. In 1985 alone, Interior's Inspector General conducted two probes of the Commission alone which cost the tax payers considerable sums and resulted in the finding of no impropriety as alleged.

There is no question that the policy of relocation has been controversial from the outset. However, an examination of the facts will show that the vast majority of families have stepped forward to apply for relocation benefits. Since the implementation of this Act, through the end of February 1987, we have made available 1,129 replacement dwellings, and thereby fulfilled our responsibility to those families. There are some 1,200 families who moved pursuant to the Act and are awaiting relocation benefits. There are some 300 families still occupying the Hopi Partitioned Lands, and of those, we estimate 60 have not applied for relocation benefits. The plain fact is that the federal government has not been able to keep up with the demand to provide replacement homes to all those eligible families who wish to move. Those opposed to relocation would have you believe that the vast majority of families affected are adamantly and totally opposed to relocation. That is simply not the truth. The vast majority of the families with whom we work see the opportunity being made available to them to reestablish themselves in any area of their choice.

One major essential fact that is being overlooked in all the suggested Congressional proposals that have been made, is that less than 30% of those families currently continuously domiciled on the land in controversy -- the so called HPL -- are professing they will not move if the government provides replacement housing. Of the estimated 300 HPL heads of household, the Commission estimates 60 have manifested their objections to relocating by not voluntarily coming forward to sign up for relocation benefits.

## Completing the Program

It seems evident that the fastest and most equitable way to proceed is to meet the obligation to build replacement homes for all those who are willing to relocate. Then, and only then, will we know the scope and extent of the success of the existing Act in resolving the problem. Altering the law at this stage of the game, after almost half the eligible families have relocated, will not save the U.S. Treasury from the expense of building or acquiring replacement homes, the cost of infrastructure, and the additional cost burden to host communities. Our legal counsel confirms that all those families certified eligible may be entitled to the replacement home benefits even if Congress were now to change the law. Those families have a contract with the federal government and the Constitution prohibits a taking of that right without just compensation.

Continuing to shrink this problem down by allowing this Commission and the BIA to meet the housing needs of these families, is the only equitable approach that can be taken at this time. Many families are living in extremely distressing circumstances while awaiting the receipt of their relocation benefits. It is cruel and inhumane to subject these eligible relocatees to all of the uncertainties caused by the failure to devote the necessary financial resources to accomplish what the United States Government has promised: to build a replacement home for all those families who are eligible for relocation benefits.

The Commission has been concerned for some time with the problems facing those who are awaiting relocation. At last years appropriations hearings, Mr. Yates expressed his concern for their plight. In response to this concern, the Commission has undertaken a survey and has contacted almost all of the families who are awaiting the receipt of relocation benefits. After the results of the survey are analyzed, the Commission may re-evaluate its priorities so that those families who are elderly and/or living in deplorable conditions receive benefits first. The Commission will prepare a comprehensive report on its findings as a result of the survey.

## The Nature of the Commission's Program

The relocation law was designed to deal with a limited problem - the acquisition of replacement homes for eligible families who are required to move as a result of the partition of the Joint Use Area. It was never intended to be a permanent agency nor to supplant existing federal agencies that have needed expertise and responsibility. No authorization exists for the Commission to provide relocatee families with continued services after their relocation is completed. The Commission's authorization provided funds for housing, bonus payments, operations of the Commission, and a discretionary fund (added in 1980) which was hampered by a requirement that any programs funded have a 70% contribution from other sources. Appropriations for that fund have never even approached its authorized level. Congress clearly intended relocatees to be eligible for the normal governmental services that would be available to them as citizens and as Native Americans. The Commission was never intended to supplant these existing programs.

It is certainly not news to you, Mr. Chairman, that the problems facing Indian country are considerable. The lack of job opportunities on all reservations is epidemic. The available educational systems have simply not been adequate to prepare Indian people to meet the challenges of twentieth century life. Many of the families subject to relocation have little facility in the main stream of society. It was not the decision of the Commission to relocate these people; it was the decision of Congress and the courts. The Commission has done the best job possible within available resources to secure decent, safe and sanitary replacement dwellings for the relocatees. The Commission has also established, although not specifically directed to do so, both a pre- and post-move counseling component.

There are indeed other agencies responsible for and chartered by the Congress to meet those other needs. This single purpose, temporary agency must comply with the law. We have and will continue to call on other agencies of government as well as the Navajo and Hopi tribal governments to assist. Throughout the course of this program, the Commission has requested assistance from the Bureau of Indian Affairs, Indian Health Service, the Economic Development Administration, the Bureau of Land Management, U.S. Geological Survey, the Environmental Protection Agency, and the Department of Housing and Urban Development.

## Congressional Directives

If the truth be known, Congress has had considerable say so on the day to day operations of this Commission. It is important to remember that every year's appropriations bill has provided different directions to the Commission concerning the implementation of the program. This has resulted in considerable confusion to those affected by the program. At one point, the committees suggested that the Commission develop classes of benefits whereby families that were full-time residents would receive one level of benefits and those who had complied with the law and moved voluntarily while awaiting benefits would receive a different level of benefits. This approach was finally rejected after a GAO opinion that concluded the Commission had no authority to establish such a system. From 1982 through 1985, the Commission was directed to utilize its housing funds for those families physically residing on the HPL. This meant that the majority of certified families who were not residing on the HPL any longer were left out. Many of these families were forced to leave the HPL because of the building freeze and livestock reduction and are living with other family members or in temporary structures in reservation communities. The Commission has only received authorization for approximately 200 moves a year, so even without Congressional directive, all of these families would not have received benefits. It is not fair, therefore, to criticize the Commission for not providing benefits to these families since we were complying with Congressional directives to prioritize the HPL residents. (Appendix)

## Education and Off-Reservation Housing

During the years of legal actions commencing in 1958, through Congressional deliberations, and the final Congressional deliberations of 1974 culminating in Public Law 93-531, it was taken for granted by the parties involved that the United States Government had fulfilled its educational obligations to the members of the Navajo Tribe. The Congress had been constantly informed on an annual basis that the appropriations made by Congress for Indian education had been wisely used. This was not the case for those Navajos residing in the Former Joint Use Area. This was a remote area and proper educational opportunities had either been denied to Navajo tribal members or performed in such a haphazard manner as to leave a high percentage of those Navajos residing on the Former Joint Use Area uneducated - not only being unable to read and write english, but not having a basic understanding of English. This horrendous omission was brought to light in a very gradual manner and culminated in Navajo relocatees being relocated off-reservation into a society where they had difficulty coping, and in some instances, became disastrous.

It must be stressed that the Commission was never given the authority to tell people where they must relocate. As a result, relocatees have traditionally selected their own relocation sites, both on and off the reservation. The building of a home on the reservation is substantially under the control of the Navajo Tribe which must issue homesite leases to relocatees for the sites they have chosen. Often the communities to which the relocatees wish to move have not been receptive or willing to receive these families. Considerable dissension has existed in some communities and relocatees have been denied homesite leases because of local opposition. Because of this, in the early years of the program, the majority of the families who volunteered to relocate chose off-reservation sites for their replacement dwellings.

The choice of off-reservation sites created some substantial problems for a small percentage of those who chose that option. As noted before, many families were not really prepared for the responsibility of off-reservation life. Having lived on the reservation, where there were no property taxes and no potential to mortgage homes, their situation had changed dramatically. The Commission provided counseling to those families about the responsibilities of home ownership and the various ramifications of those moves. It also provided post-move counseling and referred those who moved off-reservation to local service providing agencies. In a limited number of cases, those services did not serve to prevent financial problems. It must be remembered that the Commission retains no interest in the relocation home once it has been provided. In off-reservation communities, the relocatee takes title to his home in fee. Nothing in the Commission's legislation provides for a continuing interest in the relocation home. Therefore, relocatee families are free to exercise their own judgement about their home.

The Relocation Commission became aware of the lack of education among relocatees and began to explore solutions to the problems as early as 1977. It had become clear to the Commission that unscrupulous realtors had taken advantage of a few relocatee families. The Commission sought input from the Navajo Tribe about what might be done to address the apparent problems. The Tribe suggested that the Commission take off-reservation land into trust so that it could not be used as collateral. This was clearly not authorized by the Commission's legislation. Discussions were held concerning the inclusion of a provision in the deed which restricted the sale of the relocation home without the consent of the Commission. Legal review determined that such a restriction on the alienation of privately held, non-trust property was not possible. It was also, needless to say, paternalistic to assume that relocatees could not be responsible for their own decisions. The Commission finally concluded that it could include a limited deed provision stating that no encumbrance could be placed on the house and no sale could be made until the relocatee had consulted with the Commission. This was designed to trigger a counseling mechanism whereby Commission staff could review the terms of any potential sale or mortgage and explain the provisions to the relocatees. Commission procedures provide that the relocatees should be advised to seek legal help with complicated transactions. This deed provision allows the Commission to assist the relocatees without preventing them from selling their homes. Since instituting this provision, the Commission has been able to assist a number of relocatees who have moved off-reservation.

It must be stressed that the majority of relocatees have adjusted to their new communities. Many of the families had already left the reservation to seek employment and were already acculturated to off-reservation life. They chose relocation sites in the communities in which they were already living and have been successful in their adaptation. The availability of relocation housing has been a tremendous benefit to those younger families who have sought educational and employment opportunities and now have a new home available to them to assist in their adaptation. It should not be viewed as a program that creates hardship and suffering, but rather a program that provides opportunity for those affected to make their way in the world.

In 1983, the Navajo Tribe selected approximately 400,000 acres of land to be used for relocation purposes. This land has now been acquired and includes some of the best grazing land in Northern Arizona. BIA and the

Commission are working together, pursuant to congressional directive, to relocate families to these new lands if they so choose. Grazing permits will be available to the majority of those families currently residing on the HPL who have maintained a traditional lifestyle surrounding livestock. This new land offers a chance for those who wish to maintain a grazing, rural lifestyle to do so and to live with members of their extended families. The first acre of land was not acquired until 1985, so this option has not been available to relocatees until now. We are extremely optimistic about the development of the new lands and the availability of grazing for these traditional families.

## Joint Use Area Population

During the many years of legal disputes and Congressional deliberations culminating in Public Law 93-531, the number of families to be relocated was estimated to be 1,000. This is borne out by the authorization for appropriations contained in Public Law 93-531 for housing benefits and bonus payments. The Commission received over 4,400 requests for benefits from Navajo and Hopi families who stated they were residents of the Former Joint Use Area. Congress used the term "residence" in Public Law 93-531 which was interpreted as "legal residence" by the first legal counsel employed by the Relocation Commission. This was further confirmed by the Phoenix Office of the Field Solicitor of the Department of the Interior, and officially confirmed by the arm of Congress known as the General Accounting Office. This increased the basic number of eligible families from 1,000 to over 2,500.

## Eligibility

There have been, over the course of the Commission's existence, a number of questions with regard to the definition of eligibility which the Commission has established. The Commission's interpretation of Public Law 93-531's language is consistent with the law and its intent.

The law provides that a person is entitled to relocation benefits if they can establish that they are residents of land partitioned to a tribe of which they are not members. The Commission explored the legislative history of the Act and concluded that the term "residency" was intended to have its legal effect. The three original Commissioners were divided on the meaning of "residence" as regards eligibility for relocation benefits. One Commissioner interpreted "residency" to mean physical occupation. The other two Commissioners interpreted "residence" to mean legal residence. This means that actual, full-time physical residence was not a requirement to receive benefits. Individuals could maintain their legal residence on the partitioned lands while being away for purposes such as employment, education or military service. The Commission, in formulating its regulations, considered the actual situation of residents on the JUA. There is little or no employment in the area and a building freeze has been in effect for almost 25 years. That meant that families had to seek shelter in other parts of the reservation while still maintaining regular contacts with the JUA. These people are considered by the Commission to be "legal" residents of the partitioned lands. Because of the two interpretations, physical or legal residence, complete indepth definitions of residency were throughly explored. The first legal counsel for the Commission agreed with the majority of the Commissioners as regards the definition of residency. Further definition was requested from the Phoenix office of the Field Solicitor and the General Accounting Office. Those three entities supported the Commission's legal counsel in accepting the legal definition of residency.

The term "temporarily away" was coined in the early years of the relocation program. That term simply means that individuals need not have been full-time physical residents of the partitioned land to qualify for benefits. This reflects the realities of the Joint Use Area and the Congressional intent of the law which was to provide a "through and generous" relocation program.

There are individuals who were born and raised in the partitioned area but who may have established a dwelling elsewhere. These people have relatives in the partitioned area and consider the partitioned area to be their home and "permanent" residence. It is important to consider the realities of life in the JUA. Education and job training were not available in the area. Job training through various government programs required people to be away. Sometimes jobs are available on the reservation, but more often the only hope of securing employments in the communities bordering the reservation. Many of these people return to their family homes on a regular basis to care for livestock and maintain their residence. Navajo and Hopi people traditionally maintain contact with their home community and consider themselves to be members of that community notwithstanding the fact that they are temporarily away.

The Commission, in determining eligibility criteria, weighed the above considerations together with Congressional intent. The eligibility criteria were sent to GAO for its review. GAO found that the Commission could properly conclude that Congress, by using the term "reside" instead of "actually occupied" in the legislation chose to permit the adoption of more liberal standards. In the opinion of GAO, a person who can prove they "reside" in the JUA, although temporarily away, will qualify for benefits. Individuals who could prove residence in 1974 and who subsequently moved from the area could be eligible for relocation benefits. There are a large number of families who fall into this category as a result of the longstanding building freeze on the JUA.

The GAO considered the situation of residents whose unique culture and traditionally strong attachment to their homeland caused them to still consider the Joint Use Area their home, even though they might have moved away. In the GAO's opinion, this portion encompasses persons who have left the partitioned area for economic reason but who, in many cases, return on weekends and holidays to visit their families and tend their orchards, gardens and livestock. If such persons can be regarded as heads of households who retained a property interest in the house and its improvements, or in livestock, and who return regularly to care for their property, GAO believed that they may be regarded as "residing" in the area.

The Commission's regulations have been revised throughout the program but have never departed from the criteria of legal residence as a major factor in determining eligibility. These regulations were clearly spelled out in the Report and Plan as accepted by Congress in 1981. The Commission has reported on its eligibility criteria and the number of families who have been determined eligible on a continuous basis. It has never been a secret and the Commission has sought review of its definitions of eligibility on a continuing basis. If its interpretation was out of line with Congressional intent, Congress has had many opportunities to review the situation and direct changes. The fact remains that the original estimate of the number of families residing on the partitioned land that was provided to Congress was not accurate.

In 1973, the BIA estimated between 800 and 1,000 families "residing" in that area. The Commission, consistent with Congressional directive, conducted a census and reported on its results in the Report and Plan. As of December 1980, the Commission had enumerated 2,801 Navajo households and 31 Hopi households who might be subject to relocation. Congress was on notice that there were considerably more families subject to relocation than was thought in 1973 and 1974.

The Commission has certified 2,637 families for relocation benefits - close to its estimates submitted to Congress in 1981. The debate about the program's eligibility criteria should be at an end. The Commission has acted on all applications for benefits and no further applications are being accepted. There are many families who have been awaiting benefits based on a good faith commitment from the government that they will receive those benefits. The focus of Congressional efforts should be to meet that commitment and provide relocation benefits to those families.

## On-Reservation Infrastructure

The Commission is often criticized for its alleged failure to provide infrastructure to on-reservation relocatees. The Commission has and will continue to provide running water and electricity to relocation homes. The Commission's group move project in the Hardrock area has frequently been cited as an example of the Commission's failure to provide services. The families participating in the move were advised that it would take time for the Commission and IHS to construct community water systems in these areas. IHS was responsible for actual construction and the Commission provided matching funds. All of the families who moved chose to do so before these facilities were completed and every family knew that this was the situation. The water projects in the Hardrock chapter are nearing completion and relocatee families will have water and electricity within a short time. It is patently unfair to criticize the Commission for informed decisions made by the relocatees and for the lack of adequate funding to complete these projects in a more expeditious manner. The lack of adequate facilities on reservations through out the country is a problem that Congress has been unable to resolve except through additional appropriations made on a year to year basis. Adequate funding has never been available to bring reservation communities into conformance with services available in mainstream areas. The Commission has provided considerable benefit to some areas on the reservation by constructing water projects which have benefited non-relocatee residents.

## Voluntary Relocation Program

It is important for those who are concerned about this program to realize that the vast majority of people affected have been law-abiding citizens and have stepped forward to voluntarily relocate. The misrepresentations that have run rampant in the last few years have characterized those residents of the HPL as being torn from their homes by force with most families vigorously resisting relocation. The facts present a considerably different picture of the situation. The Commission has received 4,451 applications since it began accepting applications. These are from families who have stepped forward understanding the realities of the partitioning of the Joint Use Area. There are a few families that have expressed resistance to relocating from the JUA.

At the present time, the Commission estimates that there are approximately 300 families still residing on the HPL. Of these families, approximately 60 have not signed up for relocation benefits. The other 240 families have been certified for benefits and most will be relocated within the next two years. At that point, the task of relocating all eligible residents of the HPL so that it can be turned over to the Hopi Tribe will be substantially completed. As to the families who have not stepped forward to voluntarily relocate, the Commission intends to contact those families and request that they choose a relocation site. Congress has expressed its intent that these families not be removed from the HPL until a replacement home is provided for them. Once the families who have voluntarily agreed to relocate have moved, Congress may wish to examine once again the situation of the few remaining families. Perhaps these families will remain on the land under Hopi jurisdiction. The ultimate decision will be in the hands of Congress. The Commission was not given any authority over families who do not wish to relocate.

The Commission has, since its inception, been a lightning rod for all the criticism over the relocation program. The Commission was created by Congress to carry out an extremely controversial program. It is not the place of the Commission to criticize or evaluate Congress' decision to partition the land and require families to move. That decision was made and the die was cast. Most of the families affected have stepped forward and agreed to move and take advantage of the opportunity presented by receipt of relocation benefits. 1,133 families have received benefits and by the time the program is completed, approximately 2,600 families will have received benefits. The program has been implemented consistent with congressional directive and the Commission has always strived to do the best possible job in difficult circumstances.

The Commission has received appropriations totaling $129 million to date. The administration of the agency has been extremely efficient. Based on the Commission's 1987 budget estimates, our administrative overhead is 4.9% using the accepted governmental method of computation of administrative overhead. The general overhead throughout the government is 10-13%. The Commission has expended all funds appropriated to date with remarkably low overhead.

## Tribal Involvement

In the Commission's early years, the three Commissioners attended chapter meetings in all the affected chapters on a regular basis. It was quite a shock to realize that most of those who would be affected by the Act, including most of the chapter officials, were not aware of the law and its impacts. The Commissioners attempted to explain the law and answer the questions of the JUA residents. The chapters requested the Commission to discontinue attendance at the meetings unless they were invited. The Commission respected this request and attends chapter meetings when invited. The Commission also established a series of planning committees throughout the JUA, which met on a regular basis during the first few years of the relocation program. These planning committees were quite effective, but were unfortunately disbanded by chapter officials when the 9th Circuit remanded the partition line decision to the District Court. The Commission had also established five field offices throughout the JUA. These were contact points for relocatees and were staffed by Navajo-speaking personnel. These field offices were gradually shut down because of the hostility of chapter officials and the lack of cooperation from tribal officials in Window Rock.

Little effort was made to prepare for the resettlement of relocatees in other areas of the reservation. In many cases, the on-reservation communities expressed open hostility to the relocatee families who wished to resettle in their areas. Considerable conflict arose in many areas. This was a tragic situation for those Navajos displaced as a result of relocation. They were made to feel that they really had no place to go. The federal agencies primarily responsible for government programs on Indian reservations made no plans for relocatees and were not prepared to provide needed services. Primarily, as a result of Commission efforts, a number of electricity and water projects were initiated in host communities on the reservation. With the help of the Interior Appropriations Committees, these projects are nearing completion and will provide services to both relocatee and non-relocatee families.

We want to stress that regardless of the position of the Navajo Tribe on relocation, the Commission has continued to consult and work with the relocatees at every possible opportunity. We believe that it is important to understand the role of the Tribe in understanding the history of this relocation effort. The Commission has always attempted to take whatever actions were best for the relocatees, not for the Tribal governments, for it is the relocatees who are our sole concern.

Statutory Deadline

In late 1984 and early 1985 the opponents of relocation seized on an argument that because the 250,000 acres of BLM land had not been acquired then relocation should stop because families forced to relocate had no place to move. The statutory provisions mandating relocation and allowing for acquisition of some additional lands were never directly tied together. The opponents of relocation would have one believe that relocation did not have to occur until the lands were acquired and the "infrastructure" (meaning the roads, streets, schools, and sanitation facilities) were in place. The statute is not susceptible to that interpretation because it is quite clear that the statutory deadline established by the Congress required families to relocate whether or not these acquired lands were fully acquired and the infrastructure in place. Indeed some 1,215 families who were found eligible for benefits do not presently physically reside on the HPL. Families can select replacement homes anywhere and are not required to relocate to these so called "new lands".

There were a number of myths which were propagated by opponents of relocation relative to the so called "deadline". One of the most inflammatory was that the federal government was prepared to use force if necessary to physically evict families still occupying the HPL as of July 7, 1986 - the deadline. The use of force was never contemplated by the Commission nor any other federal agency.

In 1984, the Commission began in earnest to discuss with Congressional and Administrative leaders the deadline dilemma. It was quite evident that the annual appropriation levels were insufficient to construct or acquire replacement homes for all the families still awaiting relocation. The Commission employed its Washington Counsel to explore possibilities which would resolve the deadline problem.

In early 1985, the Washington Counsel was authorized by the Chairman of the Commission to explore a concept called "cash equivalency". This concept centers around the notion that the eligible families are entitled to a certain dollar benefit level. Those benefits could not be provided in the form of a new home because of the lack of time needed to acquire or build them. The question was raised whether the law still could be satisfied by the deadline if those known quantitative benefits could be translated into a dollar sum to be paid as fulfillment of the government's obligation. This discussion was undertaken in the context of the dilemma which the Executive Branch faced relative to doing something by the statutory deadline. Members of the House and Senate and Executive Branch examined this option for a number of months and concluded that, under the circumstances, it was not plausible at that time.

The Congress did cooperate, however, by assisting the Commission in formulating a response to the Congressionally mandated deadline. House and Senate Appropriation conferees agreed to increase the funding level during FY '86 in order to build or acquire replacement homes for all those families still occupying the HPL. It authorized the Bureau of Indian Affairs to assist the Relocation Commission in the building of homes on the "new lands" and appropriated some $22 million dollars for that effort in addition to the $22 million dollars appropriated to the Relocation Commission to acquire and build homes on other sites selected by the relocatees. For the first time then, Congress made available sufficient funds to alleviate the most pressing problem which was procuring replacement housing for families still occupying the area of dispute.

As the July 1986 deadline approached, the Commission took extraordinary efforts to lower its visibility and reassure relocatees that force would not be used under any circumstances. The Commissioners worked effectively with the Congress to develop statutory language making clear that families would not be evicted if replacement homes were not available. It is to the credit of all concerned that the responsible actions of the Commission insured a peaceful passing of the statutory deadline. Behind the scenes, the Commission and the Bureau of Indian Affairs worked effectively to implement the FY "87 Interior Appropriation language accelerating the building of homes on the "new land" and elsewhere. The Commission's actions resulted in a satisfactory resolution of the deadline problems.

The Commissioners took an unprecedented step in early 1986, by agreeing to a Memorandum of Understanding with the Bureau of Indian Affairs which would accelerate the participation of the BIA in building homes on the "new lands" and clearing the way for a division of the labor between the two agencies. The Commission is giving total support to the efforts of the BIA in their preparation and building of homes on the "new lands".

## Negotiations

The Commission has never taken a position on the land dispute. We have been charged with interpreting and executing the law. The Commission has always held out hope for a negotiated settlement between the two tribes. The original 1974 legislation envisioned a serious effort at negotiation as the primary solution to the problem. Actual partition of the JUA and relocation of families residing on land partitioned to another tribe was only to become necessary if arbitration failed to produce a solution. The federal mediator worked tirelessly in efforts to find a compromise upon which the two tribes could agree. He was not successful.

Once relocation began, the Commission continued to pursue the possibility of negotiations between the two tribes. The Commission's efforts were often behind the scenes because of the highly political nature of this issue to both tribal governments. A number of land exchange proposals were developed by both tribes and by members of the Commission. In 1981 and 1982, the Commission sponsored a series of meetings between the two tribes to discuss land exchange and other issues related to the settlement of the dispute. The Commission has always believed that any negotiated settlement should include an agreement regarding the ownership of land in the area known as the 1934 Reservation. This dispute has been under litigation for a considerable length of time and could potentially result in further relocations. The Commission has always hoped for a negotiated settlement in this disputed area. The series of meetings sponsored by the Commission led to no agreement in either the 1882 Joint Use Area or the 1934 Reservation.

We are not the only ones who have tried to encourage a negotiated settlement to the dispute. In 1984, the President appointed Judge Clark as his special emissary to both tribes to attempt to reach some sort of agreement. Judge Clark and his assistant, Richard Morris, met with representatives of both tribes over a period of eight months. After a good faith effort, their mission was unsuccessful. Mr. Morris stated in his final report:

> "It is regretted that both Tribes do not embrace negotiation as a means of solving their complex differences. After a century of standing their ground on fundamental issues, they continue to look for others to provide solutions. In our view, negotiated

> resolutions on the broad range of differences confronting the Tribes would lead to far better results than would resolutions imposed by the courts or by the Congress."

This is clearly an issue, Mr. Chairman, about which both tribes feel very strongly. The Hopi Tribe has always maintained that it would not negotiate away the HPL - that they would never consider giving up that land. They have been willing to consider land exchanges within the Joint Use Area. They were not, however, willing to take land outside the 1882 Reservation in exchange for land within the HPL. The Navajo Tribe has been understandably concerned about reducing the number of relocations of their members. There has not yet been any middle ground developed upon which agreement could be reached. The Commission has made every possible effort to assist both tribes in reaching a compromise and has always maintained a neutral position. No agreement has yet been possible.

## Early Efforts and Planning

When viewing the activities of the Commission from its inception in 1974 to the present, one should keep in mind that the Congress created a brand new agency on December 22, 1974. The Commission was required to immediately perform certain tasks by certain dates, while getting organized. The criticisms leveled at the Commission, such as the failure to adequately plan, should be viewed in perspective. The law instructed that families should begin to relocate voluntarily "as promptly as practicable following its [the Commissions] first meeting." 25USC 640d-12d-12 (c)(s). One of the first priorities of the Commission was to try and bring order to the process of implementing the law. The first meeting was held in July 1975, seven months after the law was enacted and the date when the Secretary of the Interior formally launched this "independent entity." Developing a plan in consultation with the tribes, organizing the agency, recruiting personnel, identifying sites to which households could relocate, securing necessary congressional appropriations, determining the rules and regulations of operation, identifying the potential relocatees, judging relocatee eligibility and a hundred other essential tasks had to be done simultaneously. This had to be done without the cooperation of many of those effected, and it had to be done by employees without prior expertise in such matters. There was no other such agency in the Government from which to borrow expertise. Other agencies of the Government wanted nothing to do with this controversial program. The rules of the game have constantly changed through Congressional directive. In 1980, the law was significantly amended, and every year since the program's inception, the Appropriation Committees have instructed changes in the way in which the program is implemented. The very essence of planning is rooted in moving from something known to revealing and resolving the unknown. Progress was substantially slowed because those building blocks changed with the variances of the political process.

The Commission has engaged in planning efforts since its inception. Congress directed the Commission to prepare a Report and Plan within twenty-four months of the time the final partition line was approved by the Court. There were a number of activities that were on-going related to the Report and Plan as required by Congress. All property on the HPL was being appraised. The Commission developed over 700 appraisal records which involved valuations for structures that had no comparable estimates anywhere. The Commission was also directed to list all the households that were residents of land partitioned to the other tribe. This necessitated the establishment of field offices throughout the JUA and the contacting of thousands of people. Early in this process, it became clear that the Commission could not determine eligibility for all the families in the short time in which it was required to prepare the list. The list was published in the Report and Plan with the caveat that inclusion was not a determination of eligibility. The statute also required the

Commission to develop a plan containing a number of elements. At the same time, the Commission was directed to proceed with voluntary relocations as soon as possible after its first meeting (July, 1975). All of these activities were on-going and the Commission only had a small core staff. Financial and other "housekeeping" services were performed by the Department of Interior which created enumerable problems as this Committee is well aware. These facts are not offered by way of excuse, but rather explanation of the situation facing the Commission in its early years.

As the enumeration, appraisals and voluntary relocations were proceeding, the Commission was exploring the various aspects of the Plan as required by Congress. The Commission called on a wide variety of sources to solicit information. These included other federal agencies, both tribes, experts in Navajo and Hopi culture, state and local agencies, and most importantly, the relocatees themselves. Meetings were held throughout the JUA to solicit input of those people who were affected by relocation. The document submitted to Congress reflects the input of all of these sources.

It also reflects acknowledgement that the program was steadily evolving and changing. In 1980, the law was amended and significant changes were made. The Navajo Tribe was authorized to select and acquire 250,000 acres of BLM land solely for the use of the relocatees. The 1974 law had authorized the Navajo Tribe to purchase land to be taken into trust. In response to Commission concern about the lack of available homesites on the existing Navajo Reservation and the unavailability of grazing privileges for the more traditional families on the HPL. Congress determined that it should make available federal land without cost to the Navajo Tribe, for relocation purposes. The amendments also included a Discretionary Fund designed to address the needs of the Commission, the tribes, and the relocatees for projects related to relocation. The bill also transferred the administrative management to the Commission itself. The Commission was authorized to hire independent legal counsel. These changes occurred in the middle of the development of the Report and Plan and clearly reflect Congress' acknowledgement that the program was changing and developing.

The Commission has managed the relocation program consistent with varying Congressional directives. The Commission was presented with a law which established a framework for the relocation program. Assumptions made by Congress in passing the legislation turned out to be different in actuality. For example, Congress assumed that there were 800 - 1,000 families that would be eventually relocated. As it turned out, there are actually some 2,600 families eligible for benefits. This meant that the amount of time necessary to complete the program was underestimated. Appropriations levels limited the number of moves that could be made in any given year. The need for additional land for relocation purposes was not foreseen by the original legislation. The Commission has managed a program that needed to be flexible and to learn as it was developing. We stand by our record, Mr. Chairman.

## New Lands

The land acquisition was envisioned by Congress to be the "single most important factor in easing relocation." (Conference Report on the 1980 Amendments, House Report 96-1094) The 1974 Act authorized the Navajo Tribe to purchase 150,000 acres, to be taken into trust as part of the reservation. The Tribe in good faith selected land in an area known as Pariah Plateau in 1976. This selection raised a considerable amount of controversy from non-Indians, and when the law was amended in 1980, the Tribe's area of selection was restricted to eliminate Pariah Plateau. Needless to say, this frustrated the Tribe in a situation in which they had placed considerable reliance on the good faith of the government. Under the new law, the Tribe received a greater potential benefit because they were authorized to select 250,000 acres of BLM land within 18 miles of the existing reservation to be taken into trust, free of charge, as part of the reservation. The Tribe was authorized to acquire 150,000 acres of private land also to be taken into trust. 400,000 acres of land could now be acquired and made available for relocation purposes. The land was to be used solely for the benefit of Navajo families awaiting relocation. The Commission strongly supported these provisions as a means of addressing the limited number of homesite leases available on the reservation and the lack of available grazing privileges on the existing reservation for those traditional families whose lifestyle revolved around livestock.

## Paragon Acquisition

As soon as the legislation was passed, the Commission began to work on land acquisition. There was considerable concern that the new selections made would be honored by the government. In 1981, the Tribe identified 35,000 acres of BLM land in New Mexico in an area known as the Paragon Resources Ranch. (The Tribe's selection authority was limited to 35,000 acres in New Mexico by the 1980 Amendments). The Navajos selected Paragon Ranch, not because of its grazing capabilities, but because of the coal deposits beneath the surface. Under the Mineral Leasing Act, the Federal Government was entitled to a royalty interest estimated to be in excess of a billion dollars. The Commission expressed absolute support for this selection. It was known that there were considerable coal resources located under that land which could be utilized for the benefit of relocatees. The Commission requested that the Department of Interior withdraw the selected land so that it would be protected for the relocatees. Interior denied that request. The record of the Paragon selection clearly shows that the Commission marched hand-in-hand with the Tribe. At the same time, the Commission, which has the responsibility of administering the land until relocation is complete, secured a study of the coal resources and began to explore methods for insuring that the royalties from Paragon coal would be protected for the relocatees.

It soon became clear that acquisition of Paragon would not be an easy matter. The State of New Mexico had an interest in any royalties derived from coal development on BLM land. The transfer of that land to the Navajo Tribe could seriously jeopardize their interest. Environmentalists were concerned about mining in areas that they argued should be protected as wilderness. There were a number of coal companies that held preferential right lease applications in the Paragon Ranch area. They were concerned about protecting their rights to develop the existing coal. Public Service Company of New Mexico had plans to build a coal- fired generating station in that area. Acknowledging these competing interests, the Commission took the lead in looking at ways to accommodate the interests of all parties while protecting the rights of the relocatees. The Commission has been the only real spokesperson for the relocatees' interests.

The Commission, in May, 1982, retained Washington Counsel for the purpose of insuring the acquisition of the Paragon Ranch as well as pushing the total land acquisition program forward in order to realize all acquisitions of land prior to the statutory deadline of July 1986. The Department of the Interior originally objected to an interpretation that would lead to the subsurface mineral resources being transferred to the Navajos pursuant to the Act.

There were those in the Department that argued the statute only authorized the surface transfer and not the subsurface. After more than a year and a half of legal arguments and political cajoling it became quite clear that the Department would not acquiesce. Members of the Congress were aware of the situation and stepped in. Congress took action which prevented the

Department of the Interior from denying the subsurface minerals to the Navajos. The San Juan Wilderness Act, Public Law 98-603, contained an amendment which made clear that transfers pursuant to the Relocation Law, gave all right title and interest that the federal government possessed. This legislatively resolved the conflict.

The Tribe requested further funding assistance to finalize their selections. The Commission provided the requested assistance and supported the Tribe on the various amendments to the selections that have occurred. The Navajos have been attempting to negotiate a multi-faceted business proposal to build a coal-fired power plant utilizing the coal underlying the Paragon Ranch. That transaction is due to be concluded during the current calendar year. It is the Commission's understanding that the first 10,178 acres of Paragon were finally acquired in January, 1987. The remaining transfers should occur in an expeditious manner. The Commission has been a key player in this acquisition and will continue to support and protect the interests of the relocatees in the benefits to be derived from the Paragon Ranch.

## Arizona Land Acquisition

The process envisioned by Congress for land selection turned out to be quite lengthy and cumbersome. The land selected and acquired had to be within 18 miles of an existing reservation boundary. Congress originally contemplated acquisition of BLM land within that 18 mile perimeter. It became clear as the Tribe, with assistance from the Commission, began to study possible selections, that there was not 215,000 acres of BLM land in the State of Arizona, within 18 miles of the reservation boundaries. The Commission reported on this situation to Congress in its first Land Selection Report in 1982. The lack of available BLM land meant that any land acquired would have to be private land, exchanged for BLM land, within the states of Arizona and New Mexico.

The Commission funded a detailed study of available land undertaken by the Navajo Tribe. This study was designed to look at the grazing potential of the land, the geology, the hydrology, the archaeological significance of these areas and primarily the lands' suitability for use by relocatees for resettlement purposes. This study, coordinated by the Tribe's Office of Navajo Land Development, was quite comprehensive. It pointed out the unavailability of BLM land in the area. This effort culminated in land selections made by Chairman MacDonald's administration in July, 1983. The Tribe's selections were checkerboarded in areas surrounding the off-reservation communities of Holbrook and Winslow. Considerable opposition was voiced by members of those communities who held grazing rights in those areas. Several public meetings were held in which community residents expressed strong opposition to the Tribe's selection. Most importantly, these selections were completely unsuitable for relocation purposes and would have resulted in relocatees being scattered on small parcels of land with non-Indian property surrounding them. It appeared that these selections were not made for the benefit of the relocatees, but rather to raise opposition to relocation and perhaps achieve a repeal of the law.

The Commission strongly believed in the importance of the acquisition of suitable land for relocation purposes. This meant that the land had to provide opportunities for grazing so that the more traditional families could replicate their JUA lifestyle. The land also should provide meaningful opportunities for economic development and access to growth centers where jobs might be available. The Commission began working with the new Navajo Tribal administration to review the first selections and explore alternatives. The Commission's vigorous advocacy on behalf of the relocatees resulted in the Tribe's repudiation of the first selections and the selection, in June, 1983, of the five ranches which form the New

Lands. These lands were all working ranches and constitute some of the best grazing land in northern Arizona.

Once the selections were made, however, it became clear that considerable efforts would be required to insure acquisition. All of these ranches were privately owned. This meant that each ranch owner had to be willing to select BLM land elsewhere in Arizona and New Mexico to exchange for his selected land. Of course, this assumed that these owners wished to engage in this process. As soon as the selections were made, the Commission initiated meetings with the BLM Office in Arizona. It was clear to all the parties that this would be a substantial undertaking and considerable pessimism was expressed about the process and whether it could work. The BLM State Director, Dean Bibles, devoted his personal attention to this process and, utilizing the services of a mediator, Mr. Bobby Bond, accomplished all of the complicated transactions necessary to acquire those ranches. We must, once again, take this opportunity to commend these individuals and the entire staff of the BLM involved in this process, for the accomplishment of this "herculean" task. They faced opposition on many fronts including a protest filed by the Santa Fe Railroad with Interior's Board of Land Appeals. Despite the opposition and the extremely complex nature of the individual transactions, all of the ranches were eventually acquired.

Congress, when it passed the 1980 Amendments, envisioned that the land would be available for resettlement purposes within a relatively short period of time. In fact, however, the first ranch was not acquired until 1985. From the time of the Tribe's final selection in June, 1983 until the acquisition of the Wallace Ranch, two years of complex negotiations were necessary. It is only now, in 1987, that actual relocations to the New Lands are occurring. Thus, relocation has taken longer than was originally envisioned.

As soon as the lands were selected, the Commission began the process of planning for the utilization of the New Lands. This process included considerable input from the relocatees about the kind of settlement patterns they would find desirable and the kind of grazing system they wished on these lands. Numerous trips were conducted for relocatees to the New Lands. Meetings were held throughout the HPL to discuss the New Lands. At the same time, the Commission's planning contractor, CH2M Hill, was conducting a number of studies related to land use. These included range studies, hydrology and geology, and other aspects geared toward utilization of the New Lands. The Commission's planning efforts have been extensive. Last year, at the request of the Committee, the Commission submitted a comprehensive report on its planning efforts on the New Lands. This document included all the efforts undertaken to date, as well as future planning steps. With the BIA's involvement, some of the proposed planning was changed and new directions embarked upon.

The Commission continues to attach great importance to the development of the New Lands. For the traditional families impacted by relocation, these lands offer the potential for grazing, the core of their lifestyle. The accessibility of these lands to the interstate and railroad offers significant economic development opportunities. The BIA and the Commission are working together to insure expeditious development of the land.

The Commission is embarking on a joint effort with the Navajo Tribe to explore economic development opportunities on the new lands. We have always believed that the unique location of these lands, along both Interstate 40 and the transcontinental Santa Fe Pacific Railroad line offers great development opportunities. We are hopeful that this work will provide fruitful opportunities for those who choose to relocate there.

The Commission has been a strong advocate of the acquisition of land for relocation purposes. That acquisition has now become a reality and the BIA and the Commission are proceeding with development as directed by the Committee. It is extremely important that the Committees continue to support, with the necessary funds, the development of the infrastructure which is essential to the completion of successful relocation. We will continue to report to you on the development activities and the Commission's needs and plans for the area.

### BUDGET REQUEST

Senator DECONCINI. Mr. Chairman, the fiscal year 1989 budget request for the Navajo and Hopi Indian Relocation Commission is $22,973,000. This represents a decrease of $2,297,000 below the fiscal year 1988 appropriations to date. Included in the request is $15,000,00 for relocation payments, a decrease of $3,800,000 from the amount enacted by Congress for fiscal year 1988.

### CLIENT POPULATION

I would like to have a little bit of background, Mr. Atkinson, as to the total number of families the commission estimates will be served.

Mr. ATKINSON. I would like to refer the questions on the budget to our administrative officer.

Mr. MCALISTER. Senator DeConcini, do you mean in fiscal year 1989?

Senator DECONCINI. Yes.

Mr. MCALISTER. Approximately 220 families can be relocated with $15 million. That has been our level of activity for the past 4 years.

Senator DECONCINI. What is the total number of families the Commission estimates that it will serve?

Mr. MCALISTER. Remaining to be relocated?

Senator DECONCINI. Yes.

Mr. MCALISTER. There are 1,381 certified heads of households still remaining to be relocated.

Senator DECONCINI. How many will be relocated during 1988?

Mr. MCALISTER. We have $3 million more than we normally have, so it should be about 265 or 270 families.

Senator DECONCINI. We note there is a little increase from what you said last year, approximately 240. Why is that? There is an increase from what was the justification last year. It was at 240. Now you indicate 265. Why is that?

Mr. MCALISTER. The House added another $3 million specifically for those individuals who had left the HPL but had not yet received benefits.

Senator DECONCINI. Is that why you got more this year than what your justification was last year?

Mr. MCALISTER. Yes; we did not specifically ask for that money, so in the budget justification we did not anticipate those additional moneys.

Senator DECONCINI. How many have you done so far this year through the end of March? I understand it is 52. Is that correct?

### 1988 RELOCATION STATISTICS

Ms. MASSETTO. One hundred ninety-eight.

Mr. MCALISTER. One hundred ninety-eight individuals actually relocated, Senator. The problem is always one of how many have contracted versus how many are relocated. Of this 198, many of those contracted in prior years. There is a flow going on all the time.

Senator DeConcini. What are we talking about on these numbers? Are we talking about actually completed that year, or are those carryovers.

Mr. McAlister. No; the contracts that are written, let's say beyond July 1988, will be from fiscal year 1988 funds but will not complete their relocation until some time in fiscal year 1989. There has been for the last 4 or 5 years a general average of 200 to 220 completed each year. So some of those run over a year in every case.

Ms. Massetto. Senator DeConcini, I am sorry I misled you. There are 52 families that have completed relocation as of April 1 for this year. The 198 was persons in those relocations. So there were 198 individuals affected by the relocation.

Senator DeConcini. You have got 52 and you think you are going to get 265. Realistically, are you going to get that many?

Mr. McAlister. We certainly intend to, Senator. We have prepared a plan for the remainder of the year addressing the number remaining to be contracted with and how we are going to get that accomplished. If we can submit that for the record.

Senator DeConcini. Of the unrelocated families, how many have applied for relocation benefits?

Mr. McAlister. Senator, as you know, we deal only with those who have applied for benefits. We have been estimating for the last several years that there are between 30 and 40 folks still residing on the HPL who have not filed an application and do not intend to do so. Those numbers are basically coming to us from the Bureau of Indian Affairs.

## NONAPPLICANTS

Senator DeConcini. What are your plans with those?

Mr. McAlister. We don't have any plans, Senator.

Senator DeConcini. Mr. Chairman, do you have any plans with those?

Mr. Atkinson. I misunderstood your original question, sir. I thought you wanted budget numbers.

Senator DeConcini. But of the unrelocated families, he indicated there are 30 or 40 who have not applied and you don't anticipate will. What are you going to do with those?

Mr. Atkinson. When we have relocated all of those who have come forth and asked for benefits, and those 30 or 40 are remaining. We will bring the problem back to you.

Senator DeConcini. Thank you. The Commission has no plan or recommendation about what to do with those?

Mr. Atkinson. We have no recommendations or plans on those who will not voluntarily relocate.

## DENIALS OF BENEFITS

Senator DeConcini. Have any relocatees been denied benefits?

Mr. Atkinson. Yes, sir.

Senator DECONCINI. How many?

Mr. ATKINSON. We have denied 1,513 whose cases are closed. We have denied an additional 276 which are under appeal.

Senator DECONCINI. Obviously you can't tell me why in all cases now. Can you give me two or three of the general reasons and one or two of the most outstanding or specific?

Mr. ATKINSON. As to why they were denied?

Senator DECONCINI. Yes, sir.

Mr. ATKINSON. With your OK, I will ask Mr. Tessler, who has done all of the certification for us.

Mr. TESSLER. Most of them have been denied because they are not residents. A good portion have also been denied because they did not meet our head of household requirements at the time of denial.

Senator DECONCINI. What are some of the peculiar denials? Can you think of any that stand out?

Mr. TESSLER. A peculiar one would have been someone who wasn't a resident because they have been living in a place far from the disputed area for a long period of time. That would be a very unusual circumstance.

Senator DECONCINI. Didn't you say that that is one of the most frequent reasons for denial?

Mr. TESSLER. Yes; nonresidency.

Senator DECONCINI. Chairman Atkinson, what is the appeal process? What do these 276 actually do? Who do they appeal to?

Mr. ATKINSON. After the certifying officer has denied them, then we have a hearing officer who acts as a judge who listens again to the arguments that they have. They are generally represented by an attorney when they appear before the hearing officer. If the hearing officer upholds the denial or overturns the denial, then it comes to the three Commissioners to make the final decision.

Senator DECONCINI. Who are the hearing officers?

Mr. ATKINSON. I don't know his name, sir.

Senator DECONCINI. Do you appoint the hearing officer?

Mr. ATKINSON. Yes, sir.

Senator DECONCINI. How many hearing officers do you have?

Mr. ATKINSON. I think we have only used one.

Senator DECONCINI. And they just sit when it is necessary?

Mr. ATKINSON. Yes, sir.

Senator DECONCINI. What are they paid, a per diem or an hourly basis?

Mr. TESSLER. An hourly basis.

Mr. MCALISTER. It is a contract, Senator. It is not a staff position. It is a gentleman from Phoenix whose practice is entirely as a governmental hearing officer.

Senator DECONCINI. How much is he paid?

Mr. MCALISTER. I believe it is $50 an hour.

Senator DECONCINI. Thank you.

### HOUSING ISSUES

I want to turn to some questions on housing, Chairman Atkinson. In enacting the fiscal year 1988 appropriation for the Commission the Congress included $3.3 million to address the living conditions of those who have agreed to move from their ancestral homes but who have been living in adverse conditions while awaiting relocation. Would you please update the committee on the use of these funds?

Mr. ATKINSON. If you have no objection, Senator, I will call on Mr. McAlister.

Mr. MCALISTER. Senator, the direct answer to your question is 111 of what we categorize as MDA's, which stands for moved pursuant to the act; those who were residents in 1974 but have subsequently left without benefits have been relocated in the last year and a half. This year we have already expended more funds for folks in that category than the $3 million would have covered, but part of our population every year is normally that class of individuals anyway.

As a result of concern on the part of the House committee 2 years ago, the Commission undertook a survey to determine the current living conditions and a whole host of questions for all the population, approximately 1,000 people.

At the time we had 1,500 certified heads of households approximately 200 were being worked with by the BIA. We had about another 200 that were in our process in housing or active counseling so that we didn't need to survey them; they were soon to move.

We now update that information every 4 months. Utilizing the criteria on the survey form regarding their living conditions, we prioritize those clients.

We have that report here, which we will be glad to leave with the committee.

Senator DECONCINI. My understanding is that the Navajo Tribe has approved approximately 300 homesite leases on the reservation.

Mr. MCALISTER. Actually more than that, sir. We have 300 right now. Over the life of the program we received more like 800.

Senator DECONCINI. Have families actually been relocated on some of these?

Mr. MCALISTER. Yes, sir.

Senator DECONCINI. How many?

Mr. MCALISTER. I believe 677 of the 1,290 individuals have already moved to the existing reservation.

### HOUSING REPAIR PROGRAM

Senator DECONCINI. The committees also provided $500,000 in fiscal year 1988 for repairs to pre-1980 relocation homes. The Commission had testified that 120 homes were in this category. What is the status of these repairs?

Ms. MASSETTO. Some 78 homes have been repaired as of today. There are an additional 40 that was in a second round of repairs that were too late for the first round.

Mr. McAlister. We couldn't get them into the contracting process before the winter season.

Ms. Massetto. So we are in the process of completing another 40, which will bring us up to 118.

Senator DeConcini. What has been the nature of problems with repairs?

Mr. McAlister. They have run the gamut, Senator, from relatively minor in some cases, homeowner maintenance kinds of problems that we went ahead and fixed because of the passage of time, to very serious problems. In fact, six of that group had to be replaced; they were not repairable.

All of those houses were acquired prior to 1980 during the first couple of years of the program when we did not have an in-house inspection capability. As a direct result of those problems, we rectified that situation and we now have in-house inspection. For new construction, there are about seven different interim inspections just as a city does, and for resale it is a complete inspection.

Senator DeConcini. Is there any liability to the original contractors?

Mr. McAlister. There is a 2-year warranty that we instituted about 5 or 6 years ago. We hold back part of their payment for 2 years.

Senator DeConcini. How about those of 1980 vintage?

Mr. McAlister. No, sir; I would estimate that probably 65 percent of these houses were from a firm called Village Homes, which went out of business shortly after we stopped using them.

Senator DeConcini. Do you have the builders put up a bond now?

Mr. Tessler. They are all licensed and bonded through the State.

Mr. McAlister. There is no specific performance bond on each job.

Senator DeConcini. Why is that?

Mr. McAlister. There are two reasons. One, we have a cadre of contractors who have been working with the Commission for quite some time, and those we know to be reputable and competent. Additionally, the Commission pays for the houses on a draw basis. So they don't receive funds before they have actually completed certain stages of the work. So a performance bond really isn't necessary. We don't make a release until that portion of the job has been done and inspected.

### NAVAJO COUNSELING CONTRACT

Senator DeConcini. In its fiscal year 1988 report the Senate included language directing the Commission to contract with the Navajo Tribe for necessary social services for families recently relocated to the new lands. Has this contract been executed?

Mr. McAlister. Yes, Senator, it has been executed. It took approximately 1 year to get the agreement executed with the tribe. Among other things, it called for a needs assessment as a first step on every client that was referred. During the first 4 months of the program we referred 286 clients and received 1 needs assessment.

None of the reporting that had been required under the contract was received. So there has not been a disbursement under that contract in the first 4 months of activity.

Staff has met with that office several times to attempt to help them with the reporting format and assist with the needs assessment the first time through. It was long in coming.

Senator DECONCINI. What is the trouble now?

Mr. MCALISTER. We are not getting the work.

Senator DECONCINI. Do you have a contactor there that you work with that has some authority?

Mr. MCALISTER. Yes; our assistant counseling supervisor is the COTR and works closely with the head of that social service office. I understand early on in getting the contract online one of the problems was they were going through a change at the tribe, a change of department head in the social services area; they were having a hard time identifying somebody to run the program. We do work closely with them. Mr. Yazzie is the contact on our staff.

### INTERAGENCY COOPERATION

Senator DECONCINI. Chairman Atkinson, as you know, in fiscal year 1986 Congress directed the involvement of the Bureau of Indian Affairs and the Indian Health Service to assist in the efforts of the Commission. Funding was provided to both BIA, $22 million, and IHS, $5 million. BIA is to construct homes on the new lands and IHS will construct domestic water and sanitation systems.

Your budget indicates that the Commission will be working jointly with the BIA and IHS to initiate necessary development on the new lands.

Can you describe for the committee how the Commission is working with these two agencies?

Mr. ATKINSON. We have had a good working relationship with the BIA as regards the homes which they are building on the new lands, and we refer to those as the range clusters. We have 20 range cluster sites, and those are the homes for which Congress appropriated the money for the BIA. The BIA has put the roads in in six or seven of the range clusters. They are highly visible and they are good roads. They have brought in the power and the water. We were responsible for bringing the power in and did the coordination and the planning and paid for bringing that power in.

The Indian Health Service has done an excellent job in creating what we think is an excellent water system. They have planned, over the whole of the new lands, a complete water system for the range clusters and for the urban site. When it is completed the water will be stored on high ground and it will all be gravity flow.

I would like to commend the Public Health Service for the way they have made their plans and their cooperation. We feel it has been good so far.

We are a little disappointed that there hasn't been a more accelerated construction of homes on the range clusters.

### RANGE CLUSTERS

Senator DeConcini. How many range clusters are there?

Mr. Atkinson. There are 20, sir.

Senator DeConcini. How many homes are in each cluster?

Mr. Atkinson. I think they are going to vary from 10 to 16 or 20.

Mr. McAlister. They are designed for a maximum of 30.

Mr. Atkinson. Senator DeConcini, originally it was the thinking that those families that were on the Hopi partitioned lands would be moved to the range clusters if they so desired, and they will have grazing rights there. To make that relocation compatible with Navajo culture and heritage, they wanted to bring extended family with them or family close to them. They have done that in the range clusters. They are sharing their grazing rights. It did not increase the grazing right of a permittee if he moved family with him. But we have found that we had to make that adjustment to accommodate them and to implement the law.

Is there anything you wish to add to that, Sandra?

Ms. Massetto. Only that there is a tendency for the numbers game to get confusing. The BIA is handling what are called CCD's current residents on the HPL. We handle people that have moved pursuant to the act. What is happening is that certain members on the HPL are moving, but other people that may have moved pursuant to the act are moving to the new lands with their extended families. So we are trying to reconstruct the social relationships between these families that have been pulled apart.

### ARCHEOLOGICAL PROBLEMS

Mr. Atkinson. In the rural community, Senator, we have run into a problem with the State of Arizona's archeological department. We are being held up now for final clearance.

As you well know, Senator, but some people on your committee might not know, these new lands have been occupied off and on for 1,000 or 1,500 years by native Americans who have come and gone. Geographically those sites really haven't changed much. The sites that are the best today are the same sites that were the best 1,000 or 1,500 years ago, and there are some archeological problems that we are working on with the tribe and with the State of Arizona.

Senator DeConcini. Those are in those cluster areas?

Mr. Atkinson. Both, sir. They are pretty well in all of the range cluster areas and in the rural community site. As we have chosen those sites, and the Navajo Tribe, and our consultants, it is remarkable how those same sites were used by the people who have come and gone.

### BONUS PAYMENTS

Senator DeConcini. Chairman Atkinson, bonus payments are given as an incentive to those families who voluntarily participate in the relocation program. How many bonus payments do you estimate will be disbursed in fiscal year 1988 and in fiscal year 1989?

Mr. McAlister. There will be one bonus payment for each one of the relocations, Senator.

Senator DeConcini. Everyone will get a bonus payment?

Mr. McAlister. Yes.

Senator DeConcini. That is both in 1988 and 1989?

Mr. McAlister. That is correct.

Senator DeConcini. What is the average bonus payment?

Mr. McAlister. It is still just slightly under $5,000. It was based on the date the application was filed, not when they moved. Almost all of our voluntary applications came in before that bonus began to be reduced.

Senator DeConcini. The fiscal year 1989 budget for operation of the Commission, $3,424,000, is an increase of $239,000 over 1988. For what activities is the increase requested?

Mr. McAlister. Line item by line item, Senator?

Senator DeConcini. No.

Mr. McAlister. They are broken down. There is one major item.

Senator DeConcini. Just submit those sheets to us.

Mr. McAlister. That is in the budget submission, sir.

### DISCRETIONARY FUNDS

Senator DeConcini. That will do. Thank you.

The fiscal year 1989 request for discretionary funds is $3,515,000, an increase of $1,242,000 from the fiscal year 1988 appropriation of $2,273,000. The budget justification indicates that $702,000 of this increase will be used to underwrite both infrastructure projects on the existing Navajo Reservation and planning related to the new lands. What will the remainder of the funds be used for?

Mr. McAlister. With the exception, Senator, of $250,000 for continuing discretionary fund activities, all of the remainder of the money is in infrastructure funding one way or the other. There are some specific projects we are going into with IHS. There is money for developing lots, the electrical, and streets and driveways which BIA can't build with highway funds. They can only build roads, not local streets and driveways.

Then there is also a per-move infrastructure cost. This is the first year that we have done this. It is estimated at $10,000 per on-reservation move and $5,000 per off-reservation move.

For on-reservation moves we used to take that out of the client benefit in order to provide water and electricity. When the bureau became involved and the new lands began to be developed, those infrastructure costs were being paid in addition to client benefits. So in order to both erase the inequity and provide a disincentive for people to stay on the existing reservation we changed our procedures to pay their infrastructure costs on top of their housing benefit.

Senator DeConcini. Are there any limits on what you use the discretionary funds for? Is it really discretionary for whatever legitimate reason the Commission decides?

Mr. McAlister. That has been the subject of question, Senator, at past hearings. There are two provisions in the discretionary fund. One allows only a 30-percent match for certain innovative energy projects, et cetera. A second clause allows us to pay 100 percent of certain projects.

### EDUCATION EXPENSES

Senator DeConcini. Has any of that money been used or will it be used for local school districts, or can it be used for local school districts?

Mr. McAlister. It could be, Senator. We received a request last year from the Sanders School District for planning funds. We could have and would have funded that, I'm sure. We wanted to do so, but we didn't have any uncommited funds.

We have been working in every way we can with the superintendent of the Sanders School District to assist him to anticipate and to meet the problems created by the new population coming to the area. We completed a report in-house of the potential maximum number of children which would be impacting that school each year for the next 5 years.

We had a call from Congressman Kyl's office last week. Apparently there is consideration of a special relief bill for $15 million for new school facilities.

Senator DeConcini. But you haven't given any direct discretionary funds to any school district?

Mr. McAlister. No, sir; we have not.

Senator DeConcini. Will that be available in the 1989 request, or is that subject to the discretionary judgment of the Commission?

Mr. McAlister. Will there be funds available for that?

Senator DeConcini. Yes.

Mr. McAlister. Actually, Senator, the way the budget is set up there isn't any spare money for that.

Mr. Atkinson. We will make every effort to assist the school district. It is vital to an acceptable relocation on the part of the Navajo relocatee. Last year we had a youth program during the summer for the Navajo children that are going to the Sanders School. We are going to continue that program this year and hopefully we will expand it by four or five times.

Senator DeConcini. Mr. Watkins, I don't want to leave you out. Would you like to tell me what level of funding is proposed for economic development planning for fiscal year 1988.

Mr. Watkins. We have none, Senator.

By the way, the reason I have been quiet is I am like the mayor of Flagstaff. We have been battle tested. We don't respond unless you direct a question to us.

Senator DeConcini. Mayor, I don't want to leave you out. You are a political animal. You should be able to fend for yourself any time you want. I am sure you will jump in.

Mr. Watkins. Secretary Swimmer indicated yesterday, if I remember correctly, that there was something in title 18 that was available, that he was told Sanders School District applied for it for the school relief in 1992 and 1993?

Is that right, Mike?

Mr. McAlister. Yes; he said he had encouraged the district to request the normal impact aid funds. I believe that is 218.

Mr. Watkins. But the secretary indicated that he asked Sanders to pursue that.

On economic development, that is a very difficult item for us to discuss, because we have been trying to encourage and develop, but as of now we don't have any funds.

Do we, Mr. McAlister?

## ECONOMIC DEVELOPMENT

Senator DeConcini. Do you have any funds for economic development?

Mr. McAlister. No, we don't sir.

Senator DeConcini. In 1988 or 1989?

Mr. McAlister. No, sir.

Ms. Massetto. The fact is that with what little moneys we had we did do a study last year on job availability in the Sanders-Gallup-St. Johns area. The Commission has not had any funds to go forward in the economic development area. We have proposed through the administration's legislation that reimbursable moneys be lent against the Paragon Ranch and be used for economic development funds on the new lands and on areas that are impacted by relocation. We see that as a source of money that could assist the families that have been relocated.

Senator DeConcini. Mayor, do you have any comments or statements you want to make?

Mr. Bavasi. No, Senator, not unless you have questions.

Mr. Watkins. Senator, the chairman advised me that we have done a complete demographic study relative to business. We have that in the files but no funds to follow up with it.

Senator DeConcini. When was that done?

Mr. Watkins. This year.

Senator DeConcini. What did that cost?

Mr. Watkins. About $9,500. Since the costs are relatively small, we intend to follow up and take the next step in terms of what types of businesses might be able to relocate.

Senator DeConcini. Do you have a plan along with that as to what kind of businesses you are going to go out and talk to?

Mr. Watkins. That is the next step. The first step we did was a demographic study. The next step now is to do exactly what you are suggesting.

Senator DeConcini. Are you going to do that?

Mr. Watkins. Yes; we are out looking at different firms to do that for us now.

## RURAL COMMUNITY

Ms. MASSETTO. Senator DeConcini, we are also in the process of developing a more urban type village on the new lands. We have been working with the planners to identify areas that would be potential industrial areas and potential agricultural areas within this community situation.

We have also had discussions with the FAA about having a landing strip developed there.

In terms of planning and designing the land use, we have had various discussions throughout the year with the Navajo Tribe.

One of the things that has been raised with some objection is how do we deal with the administration of those areas. Businesses are constantly being faced with having to work with the political body of the chapter when they want to come and locate in a particular area. Because there are no systems developed on this particular piece of land, the question was raised: could it be withdrawn and sort of a town council type concept be developed for the purposes of leasing and encouraging businesses to go into that particular area?

The Navajos are concerned, and rightfully so, that they have a system of government and they want to keep it consistent with what they have been doing. They understand that there are advantages to having some kind of zoning and operational guidelines that are beyond the sort of traditional chapter way of handling things.

Senator DECONCINI. Thank you.

Chairman Atkinson, do you have any other statement you want to make? Or any of your Commissioners?

Mr. ATKINSON. Do you have anything you wish to say, Ralph?

Mr. WATKINS. I think the Senator has heard everything we had to say about 1 week ago.

Mr. BAVASI. Senator, the only thing I would like to say is thank you for allowing us to be here.We appreciate your courtesy.

## CLOSING REMARKS

Senator DECONCINI. Thank you. You are well prepared. We thank you for the fine testimony and statement that you submitted for the record.

# INSTITUTE OF AMERICAN INDIAN ARTS

## STATEMENT OF CAROL BAKER, ACTING PRESIDENT

### PREPARED STATEMENT

Senator DECONCINI. We will now turn to the Institute of American Indian and Alaska Native Culture and Arts Development.

Testifying on behalf of the Institute this morning will be Ms. Carol Baker, the Acting President of the Institute.

Ms. BAKER. Basically, I don't see a whole lot of point in summarizing my testimony. I think the justification and the statement are fairly obvious.

Senator DECONCINI. We will make it a part of the record.

[The statement follows:]

### STATEMENT OF CAROL BAKER

As Acting President of the Institute of American Indian Arts, I appreciate the opportunity to testify before you on behalf of the students and staff of the Institute. For many years the Institute has endeavored to provide an exemplary fine arts program for artistically gifted and talented American Indian and Alaska Native students from tribes and States throughout the Nation. In a typical year we have students from over 60 tribes and more than 20 States. For the past 25 years, we have been a school operated by the Bureau of Indian Affairs. Now, beginning June 1, 1988, we will begin operating as a federally chartered, nonprofit corporation under an independent board of trustees. The Institute is looking forward to this challenge and thanks to you and your congressional colleagues for your past and continuing support for our programs.

Over the past 5 years, our operating budget has fluxuated roughly within a 10-percent range:

[In thousands of dollars]

| | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|
| Education | 1,562 | 1,666 | 1,623 | 1,696 | 2,195 |
| Facilities management | 400 | 450 | 450 | 450 | |
| Total | 1,962 | 2,116 | 2,073 | 2,146 | 2,195 |

In fiscal year 1988, $450,000 was transferred from the Bureau's Office of Facility Management to the Bureau's Office of Indian Education Programs for facilities rental; this is included in the $2,195,000 total. Also in fiscal year 1988 we received an appropriation of $400,000 for transition costs, including a contract to develop administrative operating systems to be ready for the June 1 transfer.

Our fiscal year 1988 operating budget breaks down to the following estimated costs: personal services—$1,245,427 (57 percent); facilities lease—$551,000 and food services contract—$161,122 (33 percent); supplies, materials, and equipment—$160,951 (7 percent); telephone services—$42,000 (2 percent); transportation—$34,500 (2 percent).

In fiscal year 1989 the President's budget includes $2,467,000 for the operation of the Institute of American Indian and Alaska Native Culture and Arts Development. Of this $250,000 is for the endowment established under Public Law 99-498, section 1518, leaving $2,217,000 for operations. This will allow the Institute to continue operating at its current level.

I will be happy to respond to any questions you may have. Thank you.

Senator DECONCINI. The budget justification indicates that the Institute serves students from as many as 60 different tribes, representing 20 States. How many students are currently enrolled at the Institute?

Ms. BAKER. At this particular time we have 130 students. Enrollment has definitely declined over the last few years, because they have done no recruitment in the last 5 years. We did start sending out some people this year. It does appear that our current applications are running somewhere in the neighborhood of 90 percent over last year's.

Senator DECONCINI. Who does the recruitment?

Ms. BAKER. Right now it is just current staff as we can free them up. Again, in the future, I feel like the new board as they take over is going to put in some kind of institutional development office that will include that type program, but we have not done it at this point.

Senator DECONCINI. Do you receive any private funds or funds other than Federal Government funds?

Ms. BAKER. At this point no. We have received $1,000 in cash and some 71 art objects in the last year. Most of our activities have been held pending confirmation of the board. I was afraid that there might be some dispute over ownership of the funds if we started accepting donations at this point, so I tried to keep the actual receipt of funds down and asked people to delay until the board takes over June 1.

Senator DECONCINI. What is the capacity of the number of students that you could take?

Ms. BAKER. Given current facilities, our absolute maximum would be 200, and that would probably push it.

Senator DECONCINI. What is the most you have every had?

Ms. BAKER. Before they moved to the College of Santa Fe campus I think they were up as high as 225.

Senator DECONCINI. Where were they before then?

Ms. BAKER. They were at the current site of the Santa Fe Indian School.

Senator DECONCINI. Does the Institute plan on increasing the recruitment efforts? Is that part of the plan after the board is confirmed?

Ms. BAKER. Unofficially, I feel that that indeed is going to be the case, but of course without the board I can't very well speak for them.

Senator DECONCINI. Do your students live on campus?

Ms. BAKER. Approximately two-thirds of them do live on campus. The remaining one-third either have family or commute or live somewhere in the area.

Senator DECONCINI. Given the new independent status of the Commission, what changes do you project for the institute?

Ms. BAKER. Certainly the law itself mandates certain changes. The organization itself is going to be changed. There will be a more balanced emphasis on culture as well as the arts. For the last few years they have concentrated basically on nothing but instruction in the fine arts. So there will be a great deal of expansion into the cultural areas, I'm sure.

I would expect the first year to be primarily one of updating the 1983 plan, doing some planning and the various studies that are needed before they actually make a whole lot of changes.

Senator DeConcini. I see that the budget includes a request of $250,000 to help establish an endowment fund that was authorized back in 1986. Do you anticipate getting outside contributions for this endowment fund?

Ms. Baker. Yes, sir; in fact, we have a pending bequest right now. We are waiting until they settle the estate. It is in the neighborhood of $200,000. They expect to settle it within the next 6 months. So we should have no problem raising the $250,000 to match.

Senator DeConcini. Will you seek more than that?

Ms. Baker. Definitely.

Senator DeConcini. Will the endowment be set up as a 503(c) charitable deductible donee?

Ms. Baker. Yes, sir.

Senator DeConcini. Has your board of trustees all been chosen, the 13 members?

Ms. Baker. Ten members have been sent to the Senate. They had trouble getting FBI clearances, I understand, on three of the members. They have resubmitted names to the White House to finish out the 13. Hopefully it won't take quite as long this time as it did to get the first batch through.

Senator DeConcini. Are they paid?

Ms. Baker. Yes and no. They receive $125 a day stipend, honorarium, whatever, plus Government travel expenses.

Senator DeConcini. How may days do they normally meet?

Ms. Baker. Since they haven't met, we don't know for sure. I believe there was a minimum of four meetings of the executive committee established and nothing established for the full board. I would frankly anticipate quite a few meetings the first year, because I think they are going to need to.

Senator DeConcini. I understand that there has been some confusion through the transition process as to submission of the Institute's budget. The committee certainly wants to work with the Institute. How are you right now? What is your status and how are you doing?

Ms. Baker. My understanding is that both Houses of Congress did pass an amendment to the Omnibus Education Act and that takes care of some of it. I think there is still some confusion over whether we are a Government agency that submits a budget to OMB, that they give us a passback, et cetera, and go through that process.

Senator DeConcini. Did you do that this year?

Ms. Baker. That is what we did this year.

Senator DeConcini. Did they give you a passback?

Ms. Baker. Yes; the budget you have reflects the President's priorities through OMB.

Senator DeConcini. Thank you, Ms. Baker, for your testimony. We appreciate your traveling here from Santa Fe to give us this fine testimony. We appreciate the effort that you are making to maintain that Institute.

Ms. BAKER. Thank you.

### SUBCOMMITTEE RECESS

Senator DECONCINI. The subcommittee will stand in recess until Thursday, April 28, 1988, at 2 p.m., when we will hear testimony from the Bureau of Land Management.

[Whereupon at 11:40 a.m., Tuesday, April 26, the subcommittee was recessed, to reconvene at 2 p.m., Thursday, April 28.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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THURSDAY, APRIL 28, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 2:10 p.m., in room SD–116, Dirksen Senate Office Building, Hon. Harry Reid presiding.

Present: Senators Reid, Burdick, and Stevens.

## DEPARTMENT OF THE INTERIOR

### BUREAU OF LAND MANAGEMENT

**STATEMENT OF ROBERT F. BURFORD, DIRECTOR**

**ACCOMPANIED BY:**

- **ROLAND G. ROBISON, DEPUTY DIRECTOR**
- **DEAN STEPANEK, ASSISTANT DIRECTOR FOR LANDS AND RENEWABLE RESOURCES**
- **ROBERT H. LAWTON, ASSISTANT DIRECTOR FOR ENERGY AND MINERAL RESOURCES**
- **JAMES M. PARKER, ASSISTANT DIRECTOR FOR SUPPORT SERVICES**
- **THOMAS J. ALLEN, ASSISTANT DIRECTOR FOR MANAGEMENT SERVICES**
- **ROGER L. HILDEBEIDEL, CHIEF, DIVISION OF BUDGET**
- **ANTHONY L. ITTEILAG, DIRECTOR OF BUDGET, DEPARTMENT OF THE INTERIOR**

#### PREPARED STATEMENT

Senator REID. The committee will come to order. This is the time scheduled to review the fiscal year 1989 budget for the Bureau of Land Management.

The Bureau's 1989 budget estimate totals $642,965,000, a decrease of some $47 million, about 6.8 percent below fiscal year 1988.

Testifying for the Bureau today will be its Director, Mr. Robert Burford. Mr. Burford, I welcome you to the hearing today.

If you will introduce your associates for us at this time, we will proceed directly to questions. As is our custom, we will insert your statement in the record. You, of course, if you have the desire, can make whatever summary of your statement you wish.

Mr. BURFORD. Well, I think the statement is fairly concise but it would take quite a bit of time to read the entire thing. And, I think in the interest of time I will just let you accept the statement and get into questions.

[The statement follows:]

## STATEMENT OF ROBERT F. BURFORD

I appreciate the opportunity to appear here today and to support the President's FY 1989 budget request for the Bureau of Land Management.

The Bureau of Land Management (BLM) is responsible for the multiple use management of natural resources on 270 million acres of public lands located primarily in the Western States, including 90 million acres in Alaska. BLM also has the responsibility for mineral leasing and supervision of minerals operations on an additional 300 million acres of Federal mineral estate that underlie other surface ownership. The FY 1989 budget reflects our continuing commitment to effective stewardship of the Public Lands and their mineral, renewable, and other natural resources.

The 1989 total Budget Authority request for the Bureau of Land Management (BLM) is $729.3 million, an increase of $43.2 million from the 1989 base level. The total amount includes $86.4 million in Miscellaneous Permanent Appropriations and Trust Funds. For the Bureau's major operating accounts and Payments In-Lieu of Taxes (PILT) for which current appropriations are requested, the 1989 budget request is $643 million, an increase of $43.3 million from the 1989 base level.

While the request contains no major new initiatives, it does introduce several modifications for improved management of the Public Lands and resources. It addresses the increasing concerns associated with hazardous materials and their disposal on Public Lands. Also, it proposes to achieve better land management and essential record keeping processes through use of improved automation capabilities by ADP modernization and continued development of the Automated Land and Mineral Record System (ALMRS). It addresses the need to provide a more regularized process of funding firefighting and rehabilitation costs which relies less on "borrowing" funds from other accounts to cover current year fire costs.

This budget also continues the resource management initiatives established by the Secretary. These include increased partnership and cooperative endeavors with States, private organizations and individuals to improve management of the Public Lands and resources; continuation toward National energy independence; wilderness review; and improved agency management practices through the application of information technology. Increased funding is requested for those programs which protect existing public investment in facilities and resource projects, provide additional protection to public resource values, respond to significant regional and local economic needs, improve the level of safety and protection for both the Public Lands user or visitor, and support the management of highly visible and heavily used areas, such as the California Desert Conservation Area (CDCA).

In 1989, BLM will collect an estimated $209.7 million in receipts from sales of lands and vegetative products, grazing fees, timber sales, recreation fees and other miscellaneous sources. This is approximately the same level anticipated from these sources in 1988. On March 1, 1988, the grazing fee rose from $1.35 to $1.54 per animal unit month (AUM) as a result of changes in indices of costs of production, cattle prices and land lease rates. The final decision on the grazing fee change was made too late to be reflected in the 1989 receipt and budget estimates. Preliminary estimates are that total grazing fee receipts will be $16.9 million in 1989, an increase of $2.1 million from the 1988 estimate before the change in the fee and an increase of $600 thousand from the revised 1988 estimate of $16.3 million.

### Highlights of Request by Appropriations Account

The 1989 request for the "Management of Lands and Resources" (MLR) appropriation, our principal operating account for multiple-use management activities, is $464.5 million, an increase of $45.4 million from the 1989 base.

Within the total budget, $75.5 million is requested for energy and minerals management, a $4.0 million decrease from the 1989 base. A decrease of $0.9 million in the oil and gas program is based on the reduced need for KGS determinations and reduced industry demand for leasing actions. The $0.8 million decrease in the geothermal program is made possible by the reduced demand for leasing.

The decrease of $3.5 million in the coal program budget results from a reduction in certain leasing-related portions of the program that reflect continued soft coal market conditions. Due to the lack of demand for new coal leasing, this portion of the program will be reduced to minimum levels while operational aspects are maintained.

These decreases are partially offset by a $1.2 million increase in mining law administration for monitoring and compliance checks on surface management effects of mining, especially in wilderness study areas, the California Desert Conservation Area, and Alaska, and to review additional plans of operations for mining activities.

A funding level of $35.8 million is requested for lands and realty management, a decrease of $4.3 million from the 1989 base. There is a $0.6 million increase in the lower 48 lands program for trespass abatement activities on Public Lands. There is also a $1.1 million decrease in the rights-of-way program due to reductions in backlog rental decisions and energy related rights-of-way applications, and $1.7 million decrease in the Alaska lands program funding. A $2.4 million decrease in the withdrawal processing and review program is related to uncertainties revolving around the resolution of the National Wildlife Federation lawsuit. A base shift of $6.8 million in ALMRS funding from this activity to the planning and data management activity is made for 1989. This base shift will consolidate all ALMRS-related funding in one place in the Bureau's budget.

The 1989 budget provides $122.6 million for the renewable resources management activity, a net decrease of $2.8 million from the 1989 base.

A increase of $0.4 million in the forest management program is proposed to offer additional timber sale volume and reduce the backlog of reforestation work. The budget also includes a base shift of $0.9 million from MLR to the Oregon and California Grant Lands appropriation to consolidate all funding of the management of BLM administered lands in western Oregon, including the intermingled Public Domain.

The 1989 budget proposes a decrease of $7.2 million in the wild horse and burro program predicated upon a program design which includes the availability of authority to sell animals, which would have to be provided by new legislation. The proposal is to have the authority to sell 12,500 animals in fiscal year 1989 and return the estimated $3.1 million in revenue to the Bureau for support of wild horse and burro program operations. Additionally, it is estimated that 5,000 animals would be adopted. With these techniques for disposition, we could remove 15,000 animals and reach appropriate management levels in 1990. We are aware of a number of concerns about the use of sale authority and are exploring various approaches and alternatives. We note, however, that without sale authority and at the funding level proposed in the 1989 budget, the Bureau would have to suspend all removals of excess animals from the range during fiscal year 1989 and concentrate on adoption of animals currently being maintained in corrals. A suspension of removals will mean that horse populations on the range would again increase by as much as 6,000 animals during 1989.

An increase of $0.5 million in the grazing management program is proposed to enable the Bureau to meet its priority allotment monitoring requirements by monitoring an additional 2000 allotments.

In the soil, water and air program there is a $6.6 million increase for the hazardous materials program. This level includes funding for emergency responses, training and technical assistance, as well as increased hazardous waste site investigations and assessment work. The budget request includes work associated with remedial measures and studies on the Lee Acres (New Mexico) and Orville (Washington) landfill sites, and $0.3 million that would fund hazardous materials management activities in the California Desert Conservation Area.

In the soil, water, and air programs (other than hazardous materials) the budget identifies a $0.4 million decrease resulting from concentrating work in areas with critical resource conflicts and maintaining improvements only on areas where risks to human safety or high value property exist.

An overall increase of $0.7 million in the recreation management program includes an increase of $0.5 million in wilderness management to be used to intensify the interim management surveillance of wilderness study areas in the California Desert Conservation Area, and a $0.5 million increase in recreation resources management to provide increased visitor services, use supervision, and activity planning, and additional protection projects in the California Desert Conservation Area. A decrease of $0.3 million in the cultural resources management program is possible by deferring completion of cultural resource overviews, activity plans and protection projects in lower priority areas.

A decrease of $3.4 million in the wildlife program will result in reduced inventories and habitat management plan development, implementation, and maintenance for lower priority areas, and will eliminate earmarked funding for the Challenge Grant program. The Bureau will still emphasize cost-sharing efforts on wildlife habitat improvement, maintenance and research efforts. Funding for threatened and endangered species is slightly reduced ($0.3 million) from the base level because of reduced inventory needs.

An increase of $11.7 million is requested in the planning and data management activity, made up of a $9.5 million increase to continue implementation of ALMRS and a $2.2 million increase for initial implementation of the Bureau's ADP modernization project. In 1989, the Bureau is requesting a $23 million funding level for ALMRS to continue orderly project development to automate the Bureau's land and mineral records.

The decrease of $3.8 million in the cadastral survey program is associated with the Alaska cadastral program and results from the increased emphasis on the execution of Special Surveys under the Patent Plan Process and a decrease in additional original surveys on the rectangular survey grid.

An increase of $48.1 million in the firefighting and rehabilitation activity reflects a different budgeting approach between the previous fiscal years and 1989. The 1989 level of $52.2 million, is a request for upfront funding to repay emergency transfers to cover the costs of the presuppression, suppression and rehabilitation programs in 1988. The Bureau will continue to need the Section 102 authority to borrow funds to cover the fire suppression and rehabilitation costs in the current fiscal year until repayment is appropriated in 1989.

The BLM maintenance and engineering services program request is $15.8 million, an increase of $1.5 million from the 1989 base. The increase will provide for additional corrective and scheduled maintenance of BLM-administered facilities, and for increased safety for public users, visitors and Bureau employees.

The 1989 request for Payments In-Lieu of Taxes (PILT) is $105 million, the same level as the 1989 base. This level should provide full funding of PILT as authorized under current statutory formulas.

The 1989 request for the "Oregon and California Grant Lands" appropriation is $57.4 million, a decrease of $1.6 million from the 1989 base. At the budget request level, we can still offer all planned sales, (1.183 billion board feet), accomplish needed reforestation, and provide increased funding for preparation of five new resource management plans to support 1990 decadal timber management planning activities in western Oregon.

Other requests for current appropriations include a request for $1.3 million for the access program under "Construction and Access," $100 thousand for acquisition management in "Land Acquisition", and $8.5 million for "Range Improvements." Additionally $6.0 million for "Service Charges", and $100 thousand for current Miscellaneous Trust Funds accounts are estimated for indefinite appropriations included in the budget request.

This concludes my prepared statement on the FY 1989 Budget request for the Bureau of Land Management. My associates and I are ready to answer your questions and provide additional information necessary to enable you to assess our budget request.

## INTRODUCTION OF ASSOCIATES

Senator REID. Would you introduce your associates here?

Mr. BURFORD. Roland Robison, who just got back from a meeting and is now here. He is my Deputy Director.

Dean Stepanek, to my immediate right, is Assistant Director for Lands and Renewable Resources.

Bob Lawton, to the left, is Assistant Director for Energy and Mineral Resources.

James M. Parker, to my right, is the Assistant Director for Support Services.

And, Tom Allen is the Assistant Director for Management Services. He is down at the far end.

Roger Hildebeidel, who is immediately beside me here, is Chief of the Division of Budget.

And, somewhere behind me is Tony Itteilag on the far end. They are here to assist in answering the tough questions. I get to take the easy ones.

I have to apologize for the fact that I have to keep adjusting my glasses. I went off and left my real glasses at home this morning, and I've got some dime store ones on that I have to move back and forth.

Senator REID. That's not a bad looking pair of glasses for dime store glasses.

Mr. BURFORD. Well, they cost $8. But, that is what inflation has done to dime store products.

## HIGHLIGHT STATEMENT

Some of the emphasis we put in this budget is on some programs which have just recently started up over the past 5 or 6 years. One of them is our Hazardous Waste Program, which I started work on about 7 years ago. I guess that was the first time we started any work on it. And, probably 4 years ago is the first time that it ever appeared in the budget as a line item.

I had noticed a newspaper article about some hazardous wastes being dumped in an abandoned coal mine site in Pennsylvania and correlated that with a number of abandoned mine sites that you are familiar with in your State and that exist all over the West, and thought that we had better start a program of identification of those sites with the idea of what we would be facing.

It has expanded, and we have more money in it this year. And, we will probably be asking for more money in the future for this particular program.

We also have asked for an increase in funds for the automated land and mineral records system, which is a system that we have been working on for some 7 years, to get land status into computers and out of case files.

### EASTERN STATES LAND RECORDS

Our Eastern States office is responsible for the patents that have been on all the land that has been patented throughout the United States.

In that office are patents signed by George Washington. And, one particular patent there is signed by George Washington and Thomas Jefferson both. They are contained in shelves under a table similar to this and overhead there is a water sprinkler system. So, it's no way to keep records.

I made the attempt to get that problem.

Senator REID. You say there is money in here——

Mr. BURFORD. There is money in the budget to continue the ALMRS, and we will need some money to get those land records transferred. There isn't money in the budget for that particular Eastern States land records item, but we will be trying to get a start on that.

We have been looking at various systems. Our estimate is that it will probably cost us $6 million over a 3- or 4-year period to transpose all those records onto disks. After that is done we will be able to transfer those case files and those old patents over to Archives where they can receive the treatment that those historic documents should receive.

Senator REID. I'm glad you brought that to my attention. That's interesting.

Mr. BURFORD. We are planning on setting up a demonstration for people who are interested to go and visit that office, because anyone with any kind of historical bent would enjoy taking a look at some of the things that are over there.

Senator REID. Yes; I would like to do that. That little note there, does that mean anything, the little note that was slipped to you?

Mr. BURFORD. No. [Laughter.]

I made the statement about the same time he slipped me the note——

Senator REID. I didn't want you to miss anything.

Mr. BURFORD. The note says that there is nothing in this budget for Eastern States office records modernization. We had hoped to be able to find some money but have not been able to get that started yet.

I think that the budget request represents our best attempt under the funding limitations that both Congress and the executive branch operate under in these rather trying times. We have allocated those funds as best we, in the Department, can.

We recognize that some programs are not as highly funded as some of us would like. But, we also recognize that in the entire budget of the United States there has to be some method of priority setting, and we have to subject ourselves to restraint also.

### LANDS AVAILABILITY FOR LOCAL COMMUNITIES

Senator REID. Mr. Burford, as I've already mentioned, thank you for being here today.

You know how important the Bureau of Land Management is to the State of Nevada. The Bureau manages in Nevada 48.7 million acres.

This is 69 percent of Nevada's entire land mass, and that's a lot of land mass, some 71 million acres.

Most of Nevada's towns are surrounded by Bureau land. Most of its citizens depend on Bureau land for recreation and economic use. Most of its industry is on or adjacent to BLM land, or at least land made available through the Recreation and Public Purposes Act of 1926; and, of course, some of it through the Federal Land Policy and Management Act of 1976.

There has been some land made available for airports pursuant to law, or land made available pursuant to the Burton-Santini Act, or the Carey Act, or even the Desert Land Act of 1877.

There are lots of ways that land has been turned over to private industry, private individuals, but not very much of it.

I mention this law and these laws today, Mr. Director, because I want you to know that I know how important some of these rather obscure laws are to Nevada. Our way of life and our growth as a State up to this point, and our future growth, is tied to the Bureau's management of this almost 50 million acres of land.

## DANGERS FROM OLD MINE SHAFTS AND WORKINGS

It's interesting to note—you mentioned one thing that has been in the press quite a bit lately in Nevada— you mentioned it, and I wasn't going to talk about it, but it wouldn't hurt to ask a question or two about it.

As you may remember, I was born and raised in the southern part of the State where there was a mining community and there are all kinds of holes around. Of course, growing up I was taught to stay away from them. So, all the many, many holes that are in the ground around Nevada and other places, I used to stay away from them. They don't bother me.

But, we have now over—well, we have almost 1 million people in the southern part of the State and hundreds of thousands of tourists on any one given occasion that are wandering around the State of Nevada. And, they don't know about these holes. People are looking at them, people are falling in them, and driving motorcycles in them, and all kinds of things.

Is there anything the Bureau has done—and I really don't know of anything that can be done, but is there anything being considered to be done by the Bureau? Because most of these claims are not on private property; they are on unpatented mining claims, and the claims have long since gone back to the public sector.

Is there anything that the Bureau has considered doing about all of these hundreds and hundreds, thousands, of holes in the ground to make them safe for the people wandering around?

Mr. BURFORD. Well, we certainly recognize the problem. And, I guess a direct answer is that we don't have any program at the present time to fill those holes up. In some States we have fenced some of the holes, but it's a massive undertaking. Many of the holes are still active—on active claims under the 1872 mining law.

Senator Reid. A few.

Mr. Burford. Some of them have reverted back to the Government.

I think that at some time in the future that's an issue that we are going to have to face up to.

Senator Reid. I wonder if there could be a very preliminary—and, by this I mean preliminary, not a lot of work done on it, not a lot of resources spent on it, but someone to give an estimate as to how many holes there are.

And, there are only a couple of ways of getting rid of them. One is to fill them up; and, two, is to put something around them.

Mr. Burford. Or, over the top of them.

Senator Reid. Yes; which again would seem to me would be very expensive.

Mr. Burford. That has been the problem.

Senator Reid. We might be better off with some kind of a public education program or a posting in areas. For example, there are different mining areas where maybe some signs may do the trick.

Mr. Burford. We hold a Bureau management team meeting every 3 or 4 months where all the State directors get together, and I can put that on the agenda.

Senator Reid. That would be helpful.

Mr. Burford. And, just see if we can get some preliminary ideas.

### UNAUTHORIZED USE OF FEDERAL LANDS

Senator Reid. All right. The Bureau's budget proposes an increase of some $600,000 and 14 full time equivalents in the lower 48 States Realty Program, aimed at reducing the number of unauthorized uses of Federal lands. This is on page 76 of your budget.

Could you tell me a little bit about this program, or have someone do so?

Mr. Burford. It was brought about by an inspector general's investigation, and we have been pursuing that mainly where it happens in irrigated agricultural areas. A farmer decides to step out the width of a plow around where he knows his line is. Sometimes it's not intentional and sometimes it's intentional.

We have been pursuing it. Last year we had 3,560 cases of agricultural trespass on 8,979 acres. Occupancy trespass, that is where somebody just moves there and builds themselves some kind of a home on the public lands, we've had 1,979 cases on 5,818 acres. Rights-of-way trespass, where someone has put a pipeline or a similar thing without a permit, we have 1,006 cases.

Senator Reid. That's over a period of what time? One year?

Mr. Burford. That's as of April 1988. We made an estimate of the unauthorized use.

Senator Reid. It's not over a period of 1 year?

Mr. Burford. No; this is what has accumulated over a good many years.

Senator REID. You have 14 people requested. Are there other people doing this now?

Mr. BURFORD. We have had some people doing it.

Senator REID. Do you have an idea of how many?

Mr. BURFORD. No; but, I could probably look up the figure on that. I don't think we have any figures on it now.

Senator REID. Is it 10, 30?

Mr. BURFORD. I would estimate that it's probably 50 or 60. But, it's something that you will never get complete control of.

Senator REID. But, the more you work in it, the easier it would be to clear up, it would seem to me.

Mr. BURFORD. Yes; it has been a problem forever.

Senator REID. Would there be any possibility of collecting any additional moneys if the unauthorized——

Mr. BURFORD. We do collect some moneys.

Senator REID [continuing]. Use represents——

Mr. BURFORD. For intentional trespass, we do assess fines and collect them.

Senator REID. Why don't you give us—we are going to give you some other written questions, but as part of your response would you give us more detail about this, including what actual moneys have been collected as a result of the work of this operation?

Mr. BURFORD. Surely.

[The information follows:]

### COLLECTIONS FROM INTENTIONAL TRESPASS

Since January 1988, $32,102 has been collected as a result of the Bureau of Land Management's trespass abatement program. The trespass abatement regulations have been in effect since January 1988. These regulations establish financial liability of the trespasser for: (1) penalties, calculated on the basis of fair market rental values: (2) administrative costs incurred by the Bureau as a consequence of the trespass; and (3) rehabilitation and stabilization of the land on which the trespass occurred.

### DESERT LAND ENTRY CASES

Senator REID. On page 77—we were on page 76—I see that the number of desert land entry cases will decrease in 1989 from the 1988 level.

Tell me a little bit about this. What is the reason for that?

Mr. BURFORD. Well, we are processing those cases. There is a backlog, and has been a backlog. I think last year we did 235 cases in 1987. And, that's cases resolved. Not all of them involved a disposal of land, because some of the applications were rejected.

We depend on the State to tell us whether water is available or not. If water is not available, we can't go any further on the case.

We plan to process 229 cases in 1988 and 1989. The backlog in 1988 was 537 cases. But, we are getting a handle on those.

Some of those cases have been on the books for quite some time, but they are at a point where we can't do anything about it until the State takes action on the water.

Senator REID. Do you know how many you have in Nevada, desert entry cases?

Mr. BURFORD. I don't think we have them broken down.

Senator REID. You can do that, though?

Mr. BURFORD. Yes; we can break that down.

### RECREATION AND PUBLIC PURPOSES ACT LEASES

Senator REID. The number of recreation and public purpose leases are also being reduced in 1989. There were 238 cases in 1987, an estimated 176 cases in 1988. The budget calls for 158 in 1989.

Why are these cases being reduced? Do you have a backlog? Would you provide a status report, State by State, for the record of these?

Mr. BURFORD. We can provide you a chart that shows that. At the present time, we have a prohibition on issuance of any R&PP leases for waste disposal. And, the reason I stopped taking those applications was because those R&PP leases have a reverter clause on them. And, if the county or city stops using it for the reasons they applied for it, then the land reverts back to the Federal Government.

And, we started finding some cases where people have been dumping hazardous wastes into what was supposedly just a landfill. The liability then reverts back to the Federal Government.

So, I ordered that we not process anymore R&PP leases for landfills until we got the reverter clause changed. A bill has been introduced—it is already introduced in the House, and Senator Wallop is going to introduce it in the Senate, so that the land will not revert back to the Federal Government. We think that will cause the cities and counties to make sure that nothing hazardous goes into that waste landfill because they will get the liability for it.

Otherwise, they could let the reverter clause take effect and the liability comes back to the Bureau of Land Management. Further, the Superfund cannot be used to clean up sites on public lands.

Senator REID. I have a number of other questions in this area that I wish to ask you, but we have now at the hearing Senator Stevens of Alaska.

Do you have a statement or any questions that you would like to ask? If so, you are welcome to do so.

### ALASKA LANDS PROGRAMS

Senator STEVENS. Thank you very much, Mr. Chairman. I'm traveling on about two out of eight cylinders today.

Senator REID. That's still pretty fast. [Laughter.]

Mr. BURFORD. I don't think I will be able to keep up with you.

Senator STEVENS. I hope so.

Mr. BURFORD. I'm not sure. [Laughter.]

Senator STEVENS. I've got a series of questions I would just like to submit to you for the record. I hope you don't take umbrage at them on a personal basis, because I did go through your budget this year.

It seems like Alaska has taken a rather healthy whack across the board, despite the fact that almost one-half of the lands under the Bureau's jurisdiction are in Alaska. And, we have substantial activities in Alaska that are totally dependent upon this budget, Mr. Chairman.

Our passage of land to the State of Alaska and to our Native people depends upon money for surveying and for approval of some of the Indian allotments and others. And, I would like to submit these questions to you and ask if you would answer them for the record for me?

Mr. BURFORD. I will be glad to do that, Senator. I also went through the questions since a copy was sent down to me from Alaska.

After I finished reading those I suggested to the people who were talking to me about the various problems which you brought out that I get together with you later when you are traveling on all 8 cylinders or 12—I think it's 12—and we can try to build some of those funds into the base.

Senator STEVENS. That's what we need to do.

Mr. BURFORD. All right. I will try to work with you on the next budget and see what can be done to do that, because I recognize some of the problems that your questions were leading to.

I would say one thing, that although we have cut down some on aid and conveyances, if you will go back over the record of this administration we have processed more of those claims than were ever processed in the prior history. I would like to keep that up.

I am willing to discuss with you ways of doing that with the funding.

Senator STEVENS. Well, I appreciate your courtesy, Mr. Burford.

Thank you, Mr. Chairman.

Senator REID. We are in favor of Alaska getting all the money they can, just so it doesn't come from Nevada or North Dakota.

Senator STEVENS. I understand. [Laughter.]

Thank you.

### WILD HORSE AND BURRO PROGRAM

Senator REID. Yes; the 1989 budget proposes to reduce funding for the Wild Horse and Burro Program by $7,222,000, or 49 percent. From 1988 appropriations to date, it would be that big of a drop.

The budget also anticipates a 1-year legal authority to sell animals not adopted within 30 days and retain the receipts for program operations.

One-year sale authority would enable the Bureau to substantially reduce its overall program costs. For example, over 6,800 animals were being maintained in corrals at the end of 1987. Each animal costs about $3 a day for maintenance, while the budget projects that only 300 would be in corrals at the end of 1989, if sale authority were provided.

The Bureau would utilize these maintenance savings to increase the number of removals from the 8,100 estimated in 1988 to 15,000 estimated in 1989.

Mr. Director, what is your estimate of the likelihood of the Congress providing 1-year sales authority? And, has the administration submitted its proposal?

Mr. BURFORD. Well, that's a fairly simple question to answer in the first part. I would guess that the passage of sale authority has about the same chance as a snowball in hell and have been told so by some of your colleagues, both in the Senate and the House. Therefore, I made the determination after conferring with the Secretary that I would not attempt to pursue the proposal further. I think that prior to your coming into the Senate, I had proposed sale authority once, and if I remember correctly, I don't think I got it out of either committee.

At that time I had support from practically every major conservation group in the United States, because they recognized what damage those excess horses were doing and, at that time there were many more excess horses in the United States than there are today. They recognized what the horses were doing to wildlife habitat, desert bighorn habitat, especially with regard to the burros, and what they were doing to the range land in the Western United States.

Some of your constituents were some of the most vocal in their desires to get the numbers down. But, the bill still did not move.

It's a very emotional issue. I know that you recognize that, because you have been seeing a lot of press on it, both television and print media. There has been a lot of coverage in many of the Western States as well as in Washington. There was an editorial in the Wall Street Journal, which was very supportive of the idea of getting sale authority or finding some way to get the horses off the range and out of the corrals.

### REMOVAL OF HORSES FROM THE RANGE

Senator REID. I guess that's my next question. If sales authority isn't provided—and both you and I acknowledge it likely will not be—and if Congress agrees to the President's budget proposal, I understand that no excess wild horses and burros would be removed in 1989.

Is that correct?

Mr. BURFORD. That is correct. I am hoping that Congress will put some more money back in our budget. And, if you promise not to tell OMB, I won't tell them either. [Laughter.]

Senator REID. If none were removed, what would the reproduction rate do to the overall population?

Mr. BURFORD. Well, we figure a 17-percent annual increase in horse populations. And, that's a debatable figure. If there is a good year, we think it goes as high as 20 percent.

The National Academy of Science did a study which put the reproduction rate at 10 percent. But, we have about 43,500 animals now, and it will go up to about 45,300 on the range if we do not remove any in 1989.

### WILD HORSE SANCTUARIES

That is going backward from my aim. So, we are now negotiating with the State of South Dakota and the Governor's Office in South Dakota to try to get a sanctuary established there, probably with some up-front money from the Federal Government. They think they can make that self-supporting. They have some land which has been given to the State. They are prepared to purchase some other land.

The legislature has appropriated some money for a wild horse sanctuary and they are going to proceed on that. They think that they might be able to handle as many as 3,500 horses.

If we can get this sanctuary system started—and they think they can raise private funds through corporate donations and donations from horsemen who are interested in providing such a place—it will be a nonbreeding sanctuary. In other words, all studs will be gelded before they are placed on the sanctuary.

So it should, therefore, not provide more excess horses that I would have to take care of in the future. We think it's one new idea that may take care of them.

### INCREASED REGULAR ADOPTIONS

We are also planning on spending more money for our regular adoption program. We just opened another wild horse adoption center in Ohio yesterday. I don't think I've seen a press release on it yet, but it was to be opened yesterday.

We are also going to increase our advertising and increase our efforts to try, through the regular adopt-a-horse program, to get more horses adopted out. We will also be concentrating a bit more out in the West, possibly in California and some of the places out there where a lot of people are interested in horses. In summary, we are going to try to get a handle on placing horses through the sanctuary system, and increased adoptions by the Eastern States office as well as the BLM offices in the West.

### DEATHS OF ADOPTED HORSES IN NORTH DAKOTA

Senator REID. I would like to turn the time over to the chairman of the Environment and Public Works Committee, one of the ranking members of this committee, Senator Burdick.

Senator BURDICK. Thank you, Mr. Chairman.

Mr. Burford, the citizens in my State have learned a great deal about the Wild Horse and Burro Program in recent months. What they have learned is that the Bureau of Land Management oversaw the agonizing death of many wild horses which were part of the fee waiver program.

In July of last year, two ranchers in North Dakota took possession of 400 horses. The latest report I have is that only 271 horses are confirmed to be still alive, and they have been repossessed by the Bureau.

What occurred between July 1987 and March 1988 is a story of negligence and insensitivity on the part of the Bureau. These horses were left on the open range without food, water, or shelter in the middle of a North Dakota winter.

It was only after local media attention was directed at the problem, and my colleague, Senator Conrad, brought the issue up with Secretary Hodel at a hearing, that the BLM launched a full-scale investigation.

Mr. Burford, can you explain how this horrible incident happened and what the Bureau plans to do to prevent this type of tragedy for a lot of horses in the future?

Is the moratorium on further fee waiver options permanent, or could it be lifted in 6 months or 1 year from now?

Would you have called for the moratorium if the Wild Horse Program hadn't received national attention recently?

Could you please describe to me in detail the inspection procedures followed by the Bureau in checking on the herds; and, why, in the North Dakota case these procedures failed; and what changes the Bureau plans to make in these procedures?

As I understand, it took hours of prodding before the Bureau even allowed a representative of the local Humane Society to help verify the March 16 count of the horses. Yet, the Bureau's own regulations say that the BLM may authorize a local Humane Society official or a similarly qualified individual to verify compliance.

Can you explain all of this?

Mr. BURFORD. Well, it's a large program. Obviously the Bureau was at fault in that particular incident. There was no excuse for it, nor can I adequately explain it.

We had been inspecting those horses, and I think it was actually on an almost monthly basis during that period. The winter hit and the horses were scattered, and apparently my employee did not do as good a job of inspecting those horses as he should have.

When we first received word of it, we forced Mr. Cudworth to gather those horses and start feeding them in a single spot. Upon inspection of the horses, we determined that we could not move the horses without suffering much more loss until we got them in a better condition so that they could be trucked out of there.

As soon as they recovered enough to stand the stress of trucking, we moved them to our horse holding center at Bloomfield, NE, and are feeding them there. We suffered a loss, I think, of only one horse since we moved them.

I cannot do anything except apologize for the fact that this case occurred. We are taking steps to tighten up procedures. We don't think it can occur again.

That's about the story of it. We have not had reoccurrences of it, and we hope to be able to avoid them in the future.

We are reinforcing our instructions on inspection, and we hope that nothing like that happens again in the future, near or far.

## PENDING ACTION REGARDING THE HORSE DEATHS

Senator BURDICK. Mr. Burford, I'm sure that some of your shop are acquainted with North Dakota winters.

Mr. BURFORD. Yes; I think they are.

Senator BURDICK. And, to check on horses once a month when you have got subzero weather going on and water supplies freeze up, I would think that would be negligence in and of itself to only check on them once a month.

Mr. BURFORD. Well, perhaps in that particular case, it could be considered negligence in only checking once a month and not making sure that those waterholes were kept open.

I am familiar with those type of winters myself, having come from western Colorado, and having spent many days riding around chopping open holes in frozen reservoirs.

But, I don't have any excuses. It appears to be negligence. The investigation is complete, but the charges have not been filed yet by the U.S. attorney.

When we found out about the condition of the horses and what had happened, we immediately called in the Department of Justice. It is in the hands of the U.S. attorney in that area.

We assume that there will be charges filed in the case.

Senator BURDICK. Well, I certainly hope that something is done, because we don't want this to happen again. This is one of the poorest advertisements for the country that I've ever seen.

Mr. BURFORD. I agree with that assessment. And, that's the reason that it's in the hands of the Justice Department.

I had my investigators in the Bureau do some investigation for me. But, when I found out the extent of the infractions, I immediately pulled my investigators out and asked the U.S. attorney to take over the investigation, because I did not want there to be even a hint of any type of cover-up on the part of the Bureau.

Senator BURDICK. Many horses have been shipped out of there.

Mr. BURFORD. Yes; they are now in Bloomfield, NE, and are being fed. They have built up the ration to where they are on full rations now and are starting to get back in good shape.

Senator BURDICK. I certainly hope that doesn't happen again.

Mr. BURFORD. You probably don't hope so any more fervently than I do.

Senator BURDICK. Thank you.

Senator REID. Mr. Chairman, do you have anything further?

Senator BURDICK. No.

### FEE WAIVER ADOPTION SUSPENSION

Senator REID. We are going to finish a little more on wild horses and then go back to some of the things we started on earlier.

What is the affect of suspension on fee waiver applications that are now in the pipeline?

Mr. BURFORD. Well, we stopped accepting any more fee waiver applications.

Senator REID. As of April 15.

Mr. BURFORD. Yes; as of April 15. There are some still in the pipeline. For the ones that are in the pipeline, we are monitoring the adoptors very carefully and working on a program of inspection which will be more strict than it was in the past.

Senator REID. Is it possible that another 12,000 to 13,000 horses would be provided for adoption even after the fee waiver adoption program has been suspended?

Mr. BURFORD. Yes; that is possible.

Senator REID. I think it's fair to say that the committee has concern that the fee waiver program has led to some abuses to the horses.

Mr. BURFORD. I think that example just before us was one, and you are familiar with some other examples——

Senator REID. Yes.

Mr. BURFORD [continuing]. Where the people sold horses without having title to them.

Senator REID. Chairman Burdick did cover this. And, you know, I'm not here to further bring this to the attention of the Bureau. You already know it. I mean, you see articles in publications.

Mr. BURFORD. Yes; we know of it. We know it very well.

### ADEQUACY OF BLM STAFFING LEVELS

Senator REID. My question, Mr. Burford, is this: I wonder if part of this problem would have been alleviated had there been more help?

You know, one of the concerns I have with all the cuts that are taking place in the Government is that—and I've heard this from people who are in positions comparable to yours, is that with many of the cuts that we are making in the Federal Government there simply aren't people to do the work.

And, I'm wondering if part of this problem could have been from the fact that there just wasn't enough of you to go around. You know, we talked about whether somebody went there once a month or whether they went there every quarter, or should they have gone there more often.

I guess what I'm saying, especially when I started this hearing out was the fact that there was going to be a huge cut in your budget generally. Is this affecting——

Mr. BURFORD. I think there is a distortion in that reduction because of the way the fire funds are handled.

Senator REID. Is that right?

Mr. BURFORD. The Budget Officer could give you an explanation of that.

Senator REID. Well, my question is, is there—are some of the programs suffering because there aren't enough people to take care of them?

For example, many of the trespass problems, I'm not sure 14 additional people is going to do much to take care of that problem. I'm sure it will help.

But, I guess my more general question is, within the Bureau of Land Management are there enough people to do the work that needs to be done?

Mr. BURFORD. Well, it's the age old problem. If I had more people, I obviously could do more things. But, within the Department of the Interior, we are given a certain amount of money which has to be allocated by the Secretary. I work within the confines of what he gives me.

Senator REID. I understand that. I understand that you have to be a good soldier and do the best you can to defend the budget that you've been given.

But, I have a real problem as to whether, with the constraints that we have with the budget, there are enough people to do the work.

Mr. BURFORD. Actually, our FTE's have not gone down very much. I think they are fairly steady.

Senator REID. I understand that. But, you know, the workload—take Nevada as an example. You know, you have so many more problems than you used to have because of the people that are there, you know, just coming into the areas. Where you would get 10 people a year, now there are 100,000 people a year. That may be a slight exaggeration but not much in some instances.

And, I'm just—I just know that we are not gaining on the problems in Nevada. And, I don't know if it's that way in the rest of the country.

I think one of the real solutions would be to have more help to be able to maintain and police the lands better.

Mr. BURFORD. One thing that the Bureau will never be able to do is police the lands as much as they should be policed just because of the vastness of the acreage we have to manage, between 270 to 300 million acres of land.

If we put one man per section, he might be able to make sure that no activity went on, on that piece of land.

Senator REID. Well, Mr. Burford, that's oversimplifying things. A lot of the people that come before us and talk—you know, I don't know much about the National Endowment of the Arts and all that kind of stuff, but I know a little bit about that land that we have in Nevada. And, you wouldn't have to put one person a section.

We have entrances to land that there is only certain ways you can get into different areas. And, if we had more people at some of those little passes and entrances to various areas, I just—I can't stress enough. I know that we can't be perfect and watch everything.

But, I still am concerned that the Bureau of Land Management does not have enough soldiers on the field to take care of what needs to be taken care of. Now, I don't know, with the fact that you have to support this miserly little budget that you've submitted, that you can send in more.

But, my own personal feeling is, having watched the Bureau, it gets a lot of criticism. And, I think one of the reasons you get a lot of criticism is that you don't have enough help. There aren't enough people to cover what goes on out there.

Now, do you agree or disagree with that?

Mr. BURFORD. Well, I would go so far as to say that we could probably always use more people and perhaps do a better job if we had more people.

But, sitting in a Government which has had to, for one reason or another, ask for an increase in the limit of the national debt every year for the last 18 years, I have a little problem with spending more money, being as conservative as I am.

### ADEQUACY OF THE BUDGET REQUEST FOR BLM

Senator REID. Well, being as conservative as you are, you should understand that this budget is such a small budget compared to the trillion dollar budget that we have that we could finance the Bureau of Land Management forever with one B–1 bomber.

I am just not sure we have the right priorities.

Mr. BURFORD. Well, that's up to you and Congress to look at.

Senator REID. But, that's really not all the case.

Mr. BURFORD. No; I recognize the problem.

Senator REID. If we have administrators coming in raising their hand and saying this is a great budget that I have, we don't need anymore money, it really doesn't give us much room.

We have had some people that have told us that: Yeah, you are right. We don't have enough money. Not many, but there are a few.

And, I was hoping to get out of you, somebody who in the past hasn't worried about what a lot of people—what your bosses think on many occasions, I thought maybe we could get you to. [Laughter.]

Mr. BURFORD. I'm glad the TV camera is gone.

Senator REID. I waited until they left. [Laughter.]

But, I thought that we might get—you would be a little more candid. I have to believe in my heart of hearts that if you answered this question candidly, you would say: We don't have enough help, and that's one of the problems with the Bureau of Land Management. We simply can't do all that we are asked to do.

And, that's why my office and everybody else gets all these complaints. You don't have enough people to cover what is going on out there.

Mr. BURFORD. There is no doubt that I could do a better job with more money and more people. I mean, that's a given. I think that's a given.

But, I think we have been doing a fairly credible job with what we have been given to work with. I'm very proud of those people that are out there on the ground working.

Senator REID. That's what the Baltimore Orioles are saying, too. [Laughter.]

Mr. BURFORD. Gee, what a comparison. [Laughter.]

Senator REID. OK.

Mr. BURFORD. Don't make me feel like Edward Bennett Williams must feel. [Laughter.]

### WILD HORSE PROBLEM SOLUTIONS

Senator REID. OK. I have heard your explanation about the—and I've had people from your office and my office to talk about the different ways of attempting to handle the horse problem with preserves or setting aside specific land areas.

Mr. BURFORD. Yes.

Senator REID. I think we should expedite that as quickly as we can and see if we can get one that will work, at least try it to see if it will work, because we have to do something.

You know, I'm going to Lovelock when I get home and every time I go they say: Do you want to see the horses? And, I say: No; I've already seen them. The only thing is that it just keeps getting to be more of them.

And, it's like we don't need that there.

Mr. BURFORD. You do know that direction to look at preserves or sanctuaries for wild horses was placed in the continuing resolution last year. We have been pursuing that idea since then.

I think we are getting close to where we can show some strides in that direction that will get something done and get us started. If it proves successful, I think it can be expanded.

Senator REID. I have just a few more things on horses, and then I'm sure we will all be glad to get off the subject.

Mr. BURFORD. I like horses, but they are a problem, especially in your State.

## WILD HORSE FERTILITY EXPERIMENTS

Senator REID. Yes; could you tell me how you went about granting the University of Minnesota the funding to perform the fertility experiments in Nevada resulting in the death of 50 or so horses?

Mr. BURFORD. Those contracts were awarded through the National Academy of Sciences.

Senator REID. Do you know how much money was made available for that?

Mr. BURFORD. I don't have the answer to that right now. There were two contracts——

Senator REID. You can get that.

Mr. BURFORD. Yes; we can get that.

Senator REID. Did I hear somebody saying they know? Do you know, do you?

BLM Staff: The aggregate is about $900,000.

Senator REID. The aggregate is about $900,000?

BLM Staff: Yes, it is.

Mr. BURFORD. Is that on both contracts or just one?

BLM Staff: Just the contract with the University of Minnesota.

Mr. BURFORD. There is another contract at the University of California-Davis on herd genetics and how the size of various herds of horses will affect the genetics in that particular herd.

In other words, if a herd gets down too small in size, you are going to get inbreeding and poor horses.

Senator REID. But, that's in progress now?

Mr. BURFORD. It's in progress now.

Senator REID. Have you any idea when that will be completed?

Mr. BURFORD. That one is finished. The other one has got 2 years to go.

Senator REID. How much is the University of California study?

BLM Staff: It was $50,000.

Senator REID. Too bad the study couldn't be done in Nevada where the horses live.

Is the University of Minnesota still involved?

Mr. BURFORD. Yes; it is still doing the fertility research.

Senator REID. Are there any other fertility experiments being done by other universities that you are aware?

Mr. BURFORD. No; not that I am aware of.

### INVESTIGATION OF DEATHS IN FERTILITY RESEARCH STUDY

Senator REID. Has the Bureau done any reports or investigations of what happened to the horses that ended up in their deaths?

Mr. BURFORD. Yes; we did investigate that incident.

Senator REID. Could you very briefly tell me, and then any reports that are available, maybe you could provide them for the record.

[The information follows:]

MEMORANDUM:

To: State Director, Nevada

DEC 18 1987

From: Deputy State Director, L & R R

Subject: Investigation Report Into Deaths of Wild Horses in the Clan Alpine HMA

Attached, please find the subject report. This report is based upon the best information available to the investigation team and contains conclusions which to the best of the team's knowledge, provide a true representation of the facts and circumstances surrounding the deaths of the Clan Alpine wild horses. The report also contains recommendations which the team believes will prevent similar situations from occurring in the future as well as improve overall administration of the Wild Horse and Burro Program in Nevada.

/s/ Daniel C. B. Rathbun

# INVESTIGATION REPORT
# INTO THE
# DEATHS OF WILD HORSES
# IN THE
# CLAN ALPINE HERD MANAGEMENT AREA

(12/17/87)

## INTRODUCTION

The purpose of this report is to present findings and conclusions regarding investigations into the cause of death of 48 wild horses in the North end of the Clan Alpine Herd Management Area (HMA) of the Carson City District. The death of a portion of these wild horses was discovered initially on 17 September 1987. Further field review revealed additional dead horses and the full field investigation into the cause of death was concluded on 30 Oct. 1987. This report was compiled in the Nevada State Office following field investigations and interviews conducted by members of the Branch of Biological Resources, Division of Lands and Renewable Resources, NSO. The report includes information obtained from a representative of the University of Minnesota, the veterinarian who visited the scene in October, BLM employees from the Carson City District Office, and others with pertinent knowledge or information.

## BACKGROUND INFORMATION

In Fiscal Year 1985, as a part of the Appropriation Act for the Bureau of Land Management, Congress directed the BLM to expend one million dollars in the research of wild horses on public lands. Pursuant to that Congressional direction, the BLM, in cooperation with the National Academy of Sciences, contracted with the University of Minnesota to undertake a scientific investigation into the area of fertility control in wild horse populations.

As a part of this study, BLM representatives from the Washington Office, Nevada State Office and several Nevada District Offices met with the University of Minnesota research personnel on numerous occasions beginning in the Spring of 1986 to select wild horse herds upon which to conduct the research and to agree upon other terms and conditions of the research. Some of the criteria and conditions which were understood, included the following:

1. The Contracting Officer's Representative (COR) for the research contract would be located in the Washington Office, Division of Wild Horses and Burros of BLM and no provision was made for a project inspector at the state or district level.
2. In order to support the contract, BLM would make wild horse herds available for conducting the research and would not conduct any wild horse removals in those areas for three years. The areas selected were as follows: Flannigan Herd Management Area, Nevada, Wassuk Herd Management Area, Nevada, Sand Spring Herd Management Area, Nevada, Clan Alpine Herd Management Area, Nevada and Beatty's Butte Herd Management Area, Oregon. 1/
3. The University of Minnesota would work closely with BLM and advise BLM whenever horses were to be captured for research purposes.
4. No capture plan or environmental assessment would be prepared.

During September and October of 1986, 797 wild horses were removed from the Clan Alpine Herd Management Area (HMA) followed by a post gather census on November 17 & 18, 1986 in which 798 horses were counted in the Clan Alpine HMA.

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1/ The Sand Spring HMA was subsequently rejected because, based upon BLM data, it was concluded by the researchers that the Clan Alpine HMA contained sufficient wild horses to be used as a control area as well as an actual fertility study area.

In mid August 1987, the University of Minnesota contacted the Carson City BLM office and said the University intended to capture and attach radio telemetry devices to wild horses in the Clan Alpine HMA, beginning on 24 Aug. On 21 Aug., the Carson City BLM conducted a meeting with representatives from the University of Minnesota to inform them that a district representative would be present at the capture site at all times and to identify any restrictions which would be placed upon the research/capture effort. The University of Minnesota personnel were informed that any wild horses captured by them would not be run any further than 5 miles, all wild horses would be herded by the helicopter in a manner that bands would remain together and foals would remain with their mothers.

It was BLM's intent to utilize an observation helicopter to monitor gathering operations full time. However, inadequate communication processes between the parties resulted in insufficient lead time being allowed for BLM to obtain a contracted helicopter for more than three (3) hours on August 29 and three (3) hours on the morning of August 31.

To complete the experiment concerning wild horse fertility control in the Clan Alpine Herd Management Area, 150 mares between 3 and 12 years old had to be implanted with silicone capsules. Of these 150 mares, 100 were to receive capsules impregnated with hormones (estrogen or progesterone) and the remaining 50 were to receive plain (control) silicone capsules.

Capture and treatments began 24 August 1987 and continued through 3 September 1987. During that period, 493 horses were captured and handled (205 males, 288 females). Of these horses, 301 were marked with numbered collars, 149 of which were equipped with radio transmitters and were attached to the implanted mares. The other 152 collars were attached to males and to females too old for inclusion among experimental animals. One hundred ninety-two horses were not collared because they were less than 3 years old and considered too young to be fitted with permanent collars.

A veterinarian was present on August 25, 26, and 27.

The following table depicts a summary of the University of Minnesota's wild horse captures and trap locations in the Clan Alpine study area:

| LOCATION | START DATE | END DATE | NO. ANIMALS CAPTURED |
|---|---|---|---|
| Shoshone Meadows | 8/24/87 | 8/26/87 | 165 |
| War Canyon | 8/28/87 | 8/30/87 | 125 |
| Horse Creek | 8/31/87 | 9/1/87 | 70 |
| Shoshone Meadows | 9/2/87 | 9/3/87 | 133 |

Starting the afternoon of 31 August 1987, after spending the morning hours moving the trap to Horse Creek, 70 horses were caught in the Clan Alpine HMA and processed. Approximately one half of these were caught on 31 Aug. and one half were caught on 1 Sept. At that time the gathering sub-contractor stated he was having difficulty locating unmarked horses. He said some horses were present but were widely scattered and ran immediately when the helicopter was in the general area. Neither the BLM nor the University of Minnesota personnel verified these statements.

On 1 September, the representative from BLM drove to the Hole-in-the-Wall spring, north of the boundary fence between the Augusta and Clan Alpine HMAs. Several bands of horses were seen watering, and 3-5 collared horses were present. These marked horses could have come only from south of the fence in the Clan Alpine HMA, having been marked during the first 3 days of the capture effort. At that time, the horses at the spring were in very poor condition and flow from the spring was low.

Upon inspection of the fence separating the two allotments, four (4) large (20-40 foot) gaps were found. Two (2) gaps were on the section line between Sections 7 and 18 and two were on the section line between Sections 9 and 16, all in T. 23 N., R. 28 E. There was a horse trail going through one of the gaps (the most Easterly gap between Sections 9 and 16) to a spring on the south side of the fence. The trail to the spring was well travelled from north to south of the fence. A similar trail occurred in one other location (the most Easterly gap between Sections 7 and 18) indicating regular movement of horses between the two HMAs.

After discussing the lack of available horses in the Clan Alpines and the evidence suggesting regular movement between the two HMAs, BLM and University of Minnesota personnel decided the best alternative would be to move back to the north end of the Clan Alpine HMA and bring horses from the Augusta HMA through the gaps in the fence to the formerly used trap site in Shoshone Meadow. It appeared to those individuals that such a decision would have limited effect on either the welfare of the horses, which appeared to cross the fence regularly, or on the study being conducted by the University of Minnesota. Accordingly, the trap was moved back to the Shoshone Meadows location during the afternoon of 1 Sept.

On 2 and 3 September 1987, a total of 133 horses were captured from the Augusta Mountains HMA and brought through an opening in the fence separating that HMA from the Clan Alpine HMA, to the trap located in the northern part of the Clan Alpine HMA (86 on 2 Sep. and 47 on 3 Sep.) to complete treatment of mares for fertility control. All of the horses were taken from the area between Hole-in-the-Wall spring and the fence between the two HMAs (see map). Thus, the maximum distance horses were moved was approximately 15 to 20 miles to the trap site. The path to the trap site was relatively flat with the exception of one ridge, approximately 600 feet high, between the horses' original position and the trap (Map 1). The weather was hot and abnormally dry and the physical condition of the horses was relatively poor. Lengthy drought conditions prevailed, resulting in significantly limited forage and water. Air temperatures were in the 90°+ range. Considering both the condition of the horses and the environmental factors, the horses could be easily stressed by a long or fast run, by separation from water or by intensive handling.

Of the 133 horses captured, 75 were tagged with numbered collars. Of the 75 tagged animals, silicone rubber capsules were implanted into 42 mares between 3 and 12 years old, and these 42 equipped with radio collars. The additional 33 marked horses were males or females too old to include in the fertility experiment. The remaining 58 animals were not marked.

Eighty-one of the 86 horses captured on 2 Sept. were released together at approximately 7:30 that evening following appropriate experimental treatments. These animals were provided free access to water at the trap. The 5 horses (3 young females and 2 young males) retained overnight in the corral were provided hay and water. These 5 horses were held overnight because there was not enough time remaining in the day to process them with the others. The 5 were released together on the morning of 3 Sept. after handling. The 47 horses captured on 3 Sept. were kept together until treatments were complete and all could be released at once on the same day.

## DISCOVERY

On 17 September 1987, during a routine aerial census of the Augusta Mountain Herd Management Area (which includes the Hole-in-the-Wall allotment north of the Clan Alpine Herd Management Area), three dead horses were sighted along the fence near the cattleguard in T. 23 N., R. 39 E., Sec.13. Later that afternoon, an additional five carcasses were sighted from the helicopter at T. 23 N., R. 38 E., Sec. 13. Cursory examinations of the carcasses, which were bloated, revealed no direct evidence of the cause of death, such as bullet wounds. However, the aggregation of the carcasses and their proximity to the fence, suggested a possibility the animals were shot.

On 18 September the Lahontan Resource Area Manager was briefed on the discovery of the dead animals. Also, the University of Minnesota was notified and a message was left on the Nevada State Office law enforcement staff's telephone recorder that a suspected shooting of wild horses had been located in the Clan Alpine HMA.

On 25 Sept. the NSO law enforcement staff began investigating the possibility of violations of the Wild Horse and Burro Act. On 26 Sept. they visited the Clan Alpine area in an attempt to locate witnesses or evidence and on 2 Oct. they checked the carcasses for bullet wounds. It appeared from that investigation that one animal might have had a wound about mid-section on the left side, but no bullets were recovered. All carcasses were badly decomposed.

On 8 October research personnel from the University of Minnesota drove to the research area to inspect the previously located horse carcasses. During that visit, 5 additional carcasses were discovered while walking the fenceline. These animals were scattered westerly along the fenceline within 3 miles of the cattleguard located in Section 12, T. 23 N., R. 39 E. Each animal showed no obvious sign of cause of death, but like the 8 carcasses found earlier, were grouped together. Marker collars on several of the dead horses identified them as part of the University's research project on fertility control in wild horses. All of the marked horses had been captured on 2 or 3 September 1987 as part of groups brought across the fence separating the Augusta Mountain and Clan Alpine HMAs. On 13 Oct. 1987, the University of Minnesota notified the Carson City BLM Office of this discovery.

On 13 Oct. the Carson City District notified NSO law enforcement that the University of Minnesota had visited the area and located 5 more dead horses. These carcasses were located approximately halfway between the two groups of carcasses discovered on 17 Sept. At that same time, law enforcement personnel were informed that on 3 Sept. a yearling colt was captured which was dragging approximately 10 feet of rope and another foal was captured the same day which had a fresh (unrecorded) brand estimated to be approximately 2 weeks old.

On 18 Oct. the NSO law enforcement staff checked the area of 13 horses with a metal detector in an attempt to locate bullets in the carcasses but no evidence of shooting could be found.

Following these discoveries, University researchers chartered a helicopter on 19 October to locate and assess the status of all horses radio-tagged on 2 and 3 Sept. This search revealed additional dead horses and brought the total number of deaths recorded to 40. Included in these were two radio-tagged mares located by telemetry approximately one-half mile south of the trap site. The University of Minnesota notified the Carson City District Office's Wild Horse Specialist on or about 21 Oct. 1987.

On 24 Oct. law enforcement personnel contacted ranchers in the Dixie Valley area but no information of value to the investigation was obtained. On 27 Oct. arrangements were made for a veterinarian and personnel from the Carson

City District Office to assist in the investigation as it now appeared that the horses did not die as a result of being shot.

## FORMAL INVESTIGATION

On 28-30 October 1987 an investigation team composed of a veterinarian and BLM personnel from law enforcement and management divisions, searched the entire fenceline between the two allotments and examined the carcasses located there. In addition, a thorough search of areas north and south of the fence was conducted. A total of 46 dead horses was located, all of which were proximate to the fence. The two mares located south of the trap site found by University of Minnesota personnel through radio telemetry were the only horses that were not included in the search by the investigation team. Thus, a total of 48 dead horses was discovered.

Examination of carcasses by BLM's law enforcement agent on 30 October produced no evidence of shooting. Thus, no criminal activity was indicated in the deaths of the wild horses.

The 48 dead horses included 28 collared and 20 unmarked horses. Age and sex of the unmarked horses were not determined. Among the 28 collared horses were 8 males and 20 females, 16 of which had been treated with implants and fitted with radio collars on 2 and 3 September 1987. The animals were attempting to return North to their home range and were prevented from doing so by the fence. Therefore, not knowing where water sources were located south of the fence, the animals walked the fence in both directions until they died from dehydration.

## VETERINARIAN'S STATEMENT - CAUSE OF DEATH

> The 46 dead horses were found along the south side of the fenceline between the Clan Alpine and Hole-in-the-Wall management areas. When I first viewed the dead animals, they had been dead approximately 6-8 weeks and the carcasses were in advanced decomposition. Because of this condition, no

laboratory tests (i.e., tissue samples and blood samples) could be used. All the dead horses were found in lateral recumbency without any signs of struggle before death. They were found in a few groups of 2 or 3 or as single horses with the exception of one large group of 22 horses. No sex or age group seems to predominate. Many were collared in the study but about 40% were not marked.

Various causes of death (i.e., gunshot, poisoning, or toxic plants) were ruled out by physical examination of the carcasses and by finding no other horses or any type of animal affected in the same area.

In my best professional opinion, the cause of death was dehydration coupled with exhaustion and hyperthermia. From the history of the capture and release of the horses, it seems likely that they tried at great effort to return to the north side of the fence. Even though they were given water at the trap site before being released, the intense physical effort of trying to return to their home range along with an already quite poor body condition, the high environmental temperature at the time, and the lack of water in the area of the fenceline, these horses became dehydrated to the point of exhaustion. The horses then collapsed or stayed with the collapsed horses until they too collapsed from the stress of dehydration and hyperthermia.

Dehydration is a very rapidly debilitating condition. Once this condition is present, reversal would require intraveneous electrolyte solutions, rest, and shade to cool the animals. Therefore, even supplying water orally to these horses probably would not correct the electrolyte imbalance already present.

## CONTRIBUTING ADMINISTRATIVE FACTORS

1. The University of Minnesota and a BLM employee agreed to proceed with the research gather outside the Clan Alpine HMA. This action disregarded the terms of the research contract agreement. Knowledge of the contract by either

party's representative should have prevailed. Further, this action was not consistent with earlier commitments or the standing policy in Nevada that horses will not be driven from one HMA to another. Because a gather was planned for FY88 in the Augusta Mt. HMA, it was specifically excluded from the research.

The procedures, understandings, and agreements under which the University of Minnesota's research were to be conducted was consistent with the integrity of the herd management areas and would not adversely impact the established well-being of horses studied.

2. The overall development and administration of the research contract with the University of Minnesota was deficient in that no analysis was prepared on the original research effort. This analysis, if completed, would have resulted in identifying the need for such things as gathering plans and individual environmental assessments for each capture effort as well as for all other phases or specific aspects of the research contract.

3. No written documents (i.e., gather plan, E.A.) were developed specifically for or prior to this gathering. This process would have documented the gathering area boundary, distance animals were to be run and other parameters under which the gather would be conducted.

4. No on-site project inspector was officially appointed by the Authorized Officer (Washington Office), therefore impeding clear lines of communication and delegation of authority.

5. No written guidance or log was maintained to provide continuity when BLM on-site personnel were changed.

6. An observation helicopter to monitor operation of the capture helicopter, was employed for only two (2) half-days of the 5 day capture effort and not on the day that the horses suffering mortality were gathered.

7. Bureau personnel, in trying to respond to the subcontractor's concern for lack of horses and the need of the University to trap an adequate number of horses for the experiment, made decisions based on inadequate information and without fully identifying and analyzing the contingencies critical to the welfare of the horses.

8. The lack of data about the Clan Alpine HMA on September 1 was a result of

not having helicopter time to fully census the gathering areas. No further attempt was made to locate horses in other portions of the Clan Alpine HMA by BLM or University of Minnesota personnel.

9. Herding horses a distance of more than five (5) miles was not consistent with earlier commitments. This is particularly significant in light of the high temperatures and known poor conditions of the horses.

10. There was a limited exchange of information between the parties involved in the entire research project.

11. There was no immediate followup after handling the animals and disrupting their normal routines.

12. BLM accepted the contractor's concerns regarding scarcity of wild horses by immediately looking for alternative areas without confirming actual conditions, without fully assessing conditions of alternative areas and without reviewing the terms of the research project.

## RECOMMENDATIONS

The following recommendations are presented with the intention of improving BLM's administration of the Wild Horse and Burro Act and to assure that similar occurrences do not materialize in the future:

1. In all instances, regardless of circumstances, BLM should assure that a wild horse or burro capture/removal plan and associated Environmental Assessment, are prepared prior to the capture of wild horses and burros. It has been Nevada BLM policy that wild horse and burro removal plans contain maps of the capture area and that capture efforts do not extend beyond those capture area boundaries regardless of any unanticipated circumstances. This policy should be put in written form and include all captures, regardless of purpose. Responsibility for preparation should be clearly specified when second and third parties are involved, i.e., research

2. Whenever contracts are awarded which in any way affect the welfare of wild horses or burros, BLM should designate an on site project inspector who has clear lines of authority and responsibility as well as the ability to communicate on a moment's notice with management and the Contracting

Officer, to assure that any contractual problems which may affect the animals or their habitat can be resolved with minimal delay. In the event that such contracts are administered out of the Washington Office/Denver Service Center (DSC), a local project inspector from the district having jurisdiction must be appointed.

3. Whenever helicopters are utilized to manipulate horses and burros (vs. casual movement) for any purpose, it is Nevada BLM policy that visual monitoring of the operation of that aircraft be assured. It has been the policy in Nevada since August of 1985, that such monitoring be provided for Nevada BLM wild horse and burro gathers. BLM was able to acquire helicopter time to monitor gathering operations for only one-half day of the five days in which gathering occurred. This became a critical factor in view of severe environmental conditions and the poor physical shape of the horses. It is now evident that a research gather is no different than a removal gather. In cases of herd manipulation and gathers for specific purposes BLM supervision is required.

4. Whenever the gathering of wild horses and burros is being conducted by persons other than actual BLM employees (e.g., Contractors, Researchers, etc.), Nevada BLM must remain responsible for maintaining and protecting the health and welfare of the animals.

5. Set up communication procedures that provide a clear course of action when contracting problems involving conditions beyond the Project Inspector's authority, particularly when it involves the safety and welfare of wild horses and burros under BLM protection.

6. Whenever wild horses and burros are captured and released upon the public lands for any purpose, Nevada BLM should adopt a policy which provides for follow up of the effect of the release on the animals.

7. In addition to completing a gathering plan for all wild horse and burro gathers, the Bureau should ensure a precapture evaluation of conditions be completed immediately before the gather. Such an evaluation would highlight conditions that varied significantly with those considered in the gathering plan, i.e., animal condition, prevailing temperatures,

**drought conditions, animal distribution in relation to potential trap locations, etc.**

**8. Where conditions are marginal, or when the level of activity could result in undue stress, ensure appropriate veterinarian expertise is present to monitor the gathering operations.**

**9. Wild horse gathers for management and research purposes where horses will be returned to the range after processing should be conducted when weather and other conditions are favorable to the horses' physical welfare.**

**10. Take immediate action to officially assign an on-the-ground project inspector for each district, where research activities are taking place, for the duration of the contract.**

**11. As soon as possible, set up a meeting with the University of Minnesota, CO, COR, and PIs to coordinate and clarify contract stipulations and requirements both as they will govern field operations and research activities at the Lovelock Holding Facility. This meeting should also address the problem of how to conduct the pending gather in the Augusta HMA, which now contains some of the University of Minnesota Research animals, so that these animals will not be removed from the HMA and therefore, the study effort.**

**12. Whenever wild horse carcasses are discovered in the field, and circumstances suggest that natural occurrences were not responsible, immediately conduct a reconnaissance flight for the purpose of assessing the extent of the problem and any contributing factors.**

Mr. STEPANEK. Yes; we have a rather complete investigation report.

Senator REID. Could you tell me succinctly what happened?

Mr. STEPANEK. There was, in fact, a problem with regard to the areas where the horses were gathered from. They were gathered from an area that they were not intended to be gathered from. They were run too far in distance. They were treated, the implants were made, and then they were released in conditions that were intemperate. Some of them died trying to find their way home.

## LANDS CASES FOR YMCA AND JAYCEES PARK, NEVADA

Senator REID. We were talking about—I interrupted this, because Senator Stevens came in and then Senator Burdick. We were back talking about the number of recreation and public purpose leases and some other things like that a little earlier. And, we are going to get back to that in a minute if we could.

I believe that there was testimony given perhaps by you, or at least the Bureau of Land Management, in the House this week that dealt with—is that right? Did they meet? Did anybody testify in the House this week? I saw some testimony there that indicated that with the YMCA they were trying to get the land so that they could sell it to pay off a debt. And, basically looking at the law you said that that wasn't appropriate.

I don't know if you are the one, but the Bureau said that that wasn't appropriate. Is that right?

Mr. ROBISON. Yes; I testified on those bills. The position that we took on that case was that they had not complied with the terms of the 1-year grant.

Senator REID. I'm not disputing that. I'm just trying to go over that.

And, also the one that I wanted to spend 1 minute on is the Jaycees Park that they've been working for so long, this senior citizens mobile home park. And, I was glad to see at least it got in the papers that you had agreed that you would recommend that that go forward.

Is that right?

Mr. ROBISON. Yes; that's correct.

Senator REID. All right. I appreciate that, because that has been such a long, drawn out thing. And, certainly not all of it is your fault.

So, I'm glad to hear that testimony, and I wanted to make sure I heard it right, which I'm sure I did. Is that right?

Mr. ROBISON. That's correct, sir.

## R&PP REVERTER CLAUSE LEGISLATION

Senator REID. You indicated earlier, Mr. Director, that Malcolm Wallop was going to introduce a bill that removes the reverter clause and transfers of land used for waste disposal so that the BLM will no longer be liable in the case of cleanup of hazardous materials.

Is that right?

Mr. BURFORD. Yes, sir; that is right.

Senator REID. And, do you have an idea of when that might be introduced?

Mr. BURFORD. I think that it was going to be this week.

BLM STAFF. It has already been introduced.

Mr. BURFORD. It has been introduced in both the House and the Senate.

## WASTE DISPOSAL IN NEVADA

Senator REID. We talked about the wide-open spaces in Nevada. There are communities that are running out of land for waste disposal and, of course, they are looking to the BLM for more land. This is true of Clark County, the Las Vegas area.

I would like—and there is no need to take the time of the full committee, but I would like someone from your office to give me a call and we will talk about the problems in Clark County as it relates to the——

Mr. Burford. Waste disposal?

Senator Reid. Yes.

Mr. Burford. OK, I will have someone on my staff do that.

Senator Reid. Nevada has—we are going to submit some of these to you in writing, so we will do that. I will give you all the hard ones in writing and give you the easy ones here. I'm throwing you all the Nerf balls today. [Laughter.]

Mr. Burford. You have scheduled my next 6 months in answering questions.

### RIPARIAN ACTIVITIES

Senator Reid. The Bureau is budgeting about $1,500,000 for riparian work in 1989. Is that correct? Did we read that correctly?

Mr. Burford. Well, riparian work is funded out of several different sources, Senator, and it's pretty hard to identify exactly how much we budget for riparian work because some of it comes out of the soil, water, and air program, and some of it comes out of the grazing program.

Senator Reid. So, it's probably more than that?

Mr. Burford. Yes; it's more than that. It's spread across a variety of programs, even minerals. You can't just concentrate on the riparian areas without doing some work on the uplands and making sure that you are not having a lot of erosion up there.

We have a slide show and a tape of some outstanding examples of riparian restoration.

Senator Reid. I've seen some of those. I don't know if it's the specific one, but I've seen some of those and they are really outstanding.

Mr. Burford. They have done some good work. After I put out a riparian policy for the Bureau we said every district should start on a demonstration project, and these happened to be two that worked outstandingly. We wanted the rest of the Bureau offices to have the benefit of what those two places have done.

We made that information available so we can spread it throughout the Bureau.

Senator Reid. It's my understanding that—and, again it may be difficult to pick out of the budget that has been submitted—habitat improvement work is called for in riparian habitat in 107 different habitat management plans.

Is the total cost of that work, which would include stream fencing, tree, and shrub planting——it looks like you may be saved.

Mr. Burford. By the bell. [Laughter.]

Senator Reid. Well, we will submit that one in writing also.

Mr. Burford. OK, we will respond in writing.

### GAO REPORT ON RIPARIAN AREAS

Senator Reid. I am curious about this. I understand that the GAO has testified that BLM assessments in Colorado alone indicate that 90 percent of its 5,000 miles of perennial streams had riparian areas in poor or fair condition.

Is that true? Are you familiar with that statistic?

Mr. STEPANEK. That is what the GAO report indicated.

Senator REID. That's right. It's a GAO report, and I should have mentioned that to you.

Do we know what the numbers are nationwide?

Mr. BURFORD. We know the numbers that they have used in the report. I don't know that the Bureau has put together an independent assessment.

Senator REID. Nothing independent?

Mr. BURFORD. No, sir.

Senator REID. Do you think those figures of the GAO are fairly accurate?

Mr. BURFORD. Well, they are based on a rather small sampling. I would hesitate to say that they are that accurate.

Senator REID. GAO testimony states:

> Many BLM field staff we interviewed do not believe BLM management is serious about achieving broader progress. These staff widely believe that if their proposed actions for restoring riparian areas are opposed by the permitted ranchers, their managers will not support them.

How would you respond to that?

Mr. BURFORD. Well, if I represent BLM management, I would take issue with that statement, because I am serious about it. What GAO says was based on what they perceive, but it is not based on a comprehensive scientific survey process, and this finding seems contrary to the considerable emphasis that we have been placing on riparian areas.

I don't understand why anyone can come up with a conclusion like that. They certainly didn't ask the question of me, because I am serious.

### ADDITIONAL COMMITTEE QUESTIONS

Senator REID. I appreciate very much the time that you've taken here today and the questions that you've answered. We would also appreciate—we have a stack of other ones that we will submit to you—your response at your earliest convenience so that we can complete the committee's work. We would appreciate your answering those.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### Lands and Realty Program

1. Question: The Bureau's budget proposes an increase of $600,000 and 14 FTE's in the lower 48 states realty program, aimed at reducing the number of unauthorized uses of Federal lands (page 76). Will we be able to collect additional rents, if the unauthorized use represents a legitimate use of public lands?

Answer: Yes. The Bureau has advised field offices that issuance of land use authorizations, under 43 CFR Part 2920, is an appropriate means of resolving unauthorized use (trespass). Such authorizations require payment of fair market rent for the authorized use. The number of authorizations that would be issued would depend upon the compatibility of the use with the Bureau's management plans and programs.

1A. Question I notice (on page 77) that the number of desert land entry cases will decrease in 1989, from the 1988 level. What is the current status of desert land cases in Nevada.

Answer The present count of back-logged desert land entry (DLE) cases 12 months old or older is 360 cases. The constraints of the National Wildlife Federation lawsuit's Preliminary Injunction as well as water availability have considerably slowed the processing of these cases.

2. Question: The number of Recreation and Public Purpose leases are also being reduced in 1989. Do you have a backlog? Would you provide a status report, by state, for us for the records?

Answer: The peak in activity of making the public lands available for community expansion through Recreation and Public Purposes (R&PP) Act authority occurred during 1982, when the Bureau issued 656 R&PP leases and 12 R&PP patents. The number of cases processed annually has decreased gradually since that peak period due to the following two factors:

(1) The National Wildlife Federation lawsuit Preliminary Injunction (PI) enjoins the Secretary from modifying, revoking or terminating any withdrawals or classifications in effect on January 1, 1981, or taking any action inconsistent with such withdrawals or classifications. The PI has prevented many R&PP land use disposals and until the lawsuit is resolved, certain cases cannot be completed.

(2) The effect of the reversionary clause in the R&PP Act which makes the BLM ultimately responsible as a landowner if the land patented is not used for the purposes granted, has limited our use of the R&PP method as is related to sanitary landfills. Under federal and/state statutes for hazardous waste liabilities, the number of leases issued and sites authorized for sanitary landfills on public lands under the R&PP Act has been reduced. Instructions to the field were issued on February 27, 1987 suspending their authority to grant new sanitary landfill sites on public land under the R&PP Act pending consideration of

proposed legislation. There are no exceptions to those instructions.

The backlog of R&PP cases twelve (12) months old or older, most of which are for the above stated reasons and cannot be processed, is 295. The distribution of these cases by BLM State Offices is:

| STATE | NUMBER OF CASES |
|---|---|
| AZ | 17 |
| CA | 15 |
| CO | 18 |
| ID | 7 |
| MT | 0 |
| NV | 120 |
| NM | 19 |
| OR | 10 |
| UT | 8 |
| WY | 26 |
| Eastern States | 55 |
| TOTAL | 295 |

3. Question: The number of Burton-Santini Act offers, in terms of acres, is -0- in 1987, and estimated 700 acres in 1988 and 1989. How many acres have been sold to date? What were the receipts? Is there a backlog of requests? Would you provide a complete summary, to date, for the records?

Answer: As of 1987 a total of 2,068 acres have been sold with a total value of $36,835,000. There is no backlog of requests.

The act authorizes the BLM to offer up to 700 acres per year for sale. Sales of the Burton/Santini Act parcels are currently small due to limited demand and the legal constraints existing as a result of the National Wildlife Federation Lawsuit injunction concerning withdrawal review actions. No acreage was sold in FY 1987. Initially, 80 acres were proposed for sale in FY 1987 and all work was completed in preparation for the sale. At the request of local government, these lands were withdrawn from sale due to a potential conflict with airport expansion plans. Also, because of the NWF lawsuit, no additional lands were available to be sold in 1987.

## Energy and Minerals

4. Question: The state summary for Nevada refers to the resurgent gold production activity occurring now and expected to continue into the FY 1989. Please describe this activity in terms of location; value (Royalties, Rentals, etc); cost to administer; etc.

Answer: Nevada, like the other geologically favorable States of Arizona, California, Washington, Idaho, and Montana, has since 1984 been experiencing a concerted exploration effort by the mining industry for deposits of disseminated gold. These gold deposits are finely disseminated in sub-micron particles in the host rock and are difficult to find by conventional methods. Due to the economics involved at the current gold prices the sites must be mined by open pit methods, and the gold must be recovered by the cyanide heap leaching process.

Nevada, as the center of the favorable geologic trend, has experienced the greatest activity by the industry, and the BLM's workload is greatest there, especially in west Central Nevada. The following table shows the activity and expenditures occurring in Nevada over the past several fiscal years. The BLM does not maintain financial records for individual mineral commodities subject to the Mining Law of 1872. The following table therefore provides data relative to all locatable minerals recorded with BLM in Nevada. As the gold mining activity is increasing, the majority of the increasing workload can most likely be attributed to this mineral. The Federal Government receives no rents or royalties from mineral production on mining claims.

Mining Law Administration
Nevada Workload and Expenditures
FY 85 - 88

| | FISCAL YEAR | | | |
|---|---|---|---|---|
| WORK UNITS | 1985 | 1986 | 1987 | 1988* |
| Mining Claims Recorded | 29,347 | 30,420 | 57,434 | 65,000 |
| Annual Filings Received | 188,885 | 148,647 | 133,537 | 200,000 |
| Mining Plans and Notices Issued | 640 | 673 | 817 | 900 |
| Compliance Inspections | 360 | 781 | 1,493 | 2,500 |
| Expenditures (Total Mining Law Administration Program) | $688,000 | $683,000 | $784,000 | $1,080,000 |

* Estimated from trends in first half of FY 1988.

5. Question: The budget proposes a reduction of energy and minerals management activity in Nevada of about $66,000 (-15%). What is the basis for the proposed reduction? Please provide estimated workload data in support of the proposed reduction.

Answer: Although the FY 1989 President's budget levels propose a reduction overall in the energy and minerals management budget activity, final allocations to individual BLM States Offices are not made until after passage of the Interior Department Appropriations Act. However, the BLM geothermal program is experiencing a reduced workload demand and therefore a funding reduction is proposed for this program Bureauwide. Nevada is one of the BLM State Offices that currently receives geothermal funds and could be allocated reduced funding for that program. However, Nevada would also be one of the States which would receive additional funding if the increase proposed for the Mining Law Administration program is approved.

### Grazing

6. Question: How many AUMs are under permit nationwide in 1987? 1988? 1989? Are there permits going unused? Were the number of AUM's reduced in the latest plan revision?

Answer: There are a total of 21,400 permits and leases that recognize a total of 14,561,000 AUMs of livestock grazing preference on the public rangelands. In the 1987 grazing year (March 1, 1987 - February 28, 1988), 11,178,000 AUMs were sold. The difference of 3,383,000 AUMs consists of 429,000 AUMs non-use and 2,954,000 AUMs in suspended preference. The permitted and actually used AUMs are in 1988 and 1989 projected to be similar to 1987.

The AUM's that are not used are not usually reduced by a resource management plan (RMP) or MFP revision. Following the RMP, information from annual rangeland monitoring studies determines if livestock carrying capacity should be adjusted. Also economic conditions of funding and other factors unrelated to rangeland conditions may cause some operations to seek suspended preference or other non-use of AUM's.

7. Question: What is the Bureau doing in Nevada, as well as in other states, with the forage assigned to wild horses and burros, as the horses are being removed. Is the forage going unused or is it being used to increase grazing AUM's and usage?

Answer: Herd management numbers of wild horses and burros have been established as a means of balancing wild horse and burro herds with other multiple uses and values. Where animals are being removed, numbers exceed planned herd management levels. The excess animals are consuming vegetation that may have been assigned, through land use planning, to other resource uses and values, such as wildlife, livestock or watershed protection. It is not the Bureau's policy to remove wildhorses or burros for the sole purpose of providing additional grazing for livestock.

8. Question: If there is unused grazing capacity, what is happening to these lands? Are there conditions under which permits may be cancelled if unused? If so, what? If not, why not? Please provide a detailed answer for the record.

Answer: Unused grazing capacity is limited in availability. When additional forage for livestock becomes available, it is first available to the permittee(s), or lessee(s) in proportion to their contribution or efforts which resulted in the increased forage production (43 CFR 4110.3-1). As shown in Question 6, there is a significant amount of forage that would be required to satisfy the grazing preference level of current permits. Therefore, there is usually not additional livestock carrying capacity made available to non-permittees/leases.

Yes, permits may be cancelled if unused. 43 CFR 4170.1-2 provides that after consultation, coordination, and cooperation, the BLM authorized officer may cancel a grazing preference to the extent of failure to use when a permittee or lessee has failed to make substantial grazing use as authorized for two consecutive years.

### Wilderness

9. Question: Nevada has, I believe, 95 Wilderness Study Areas (WSA), totaling 4.6 million acres. How many of those WSA's are being grazed at the current time? What is the estimated impact of such grazing? Under what conditions could grazing impair a WSA to the degree that it would no longer be a suitable candidate for wilderness designation in Nevada? In other states? (Pg. 127)

Answer: Ninety out of the 95 WSA's being managed by the Nevada BLM are currently being grazed.

Levels of grazing are established through the BLM's land use/resource management planning process. The levels of grazing that were occurring in the WSAs at the time they were identified as study areas has remained relatively constant. There have been few reductions or increases based on subsequent planning and resource allocations, even though BLM policy would allow for such change. Grazing can cause compaction of vegetation along water access routes and around water sources, and does require maintenance of existing, and occasionally construction, of new range facilities such as fences and water developments.

In all the WSAs in Nevada and other States with grazing, there were some grazing impacts, but generally the impacts are low and isolated in nature and can be mitigated through proper management. None were considered so significant as to disqualify the areas from further study for their wilderness suitability. No livestock grazing increases or development of livestock facilities will be allowed that would further impair the wilderness values in a WSA. We do not forsee situations where grazing would adversely impact a WSA to the point of making an area unsuitable for designation as wilderness.

All projects proposed are evaluated, and an environmental assessment of potential impacts is prepared. The proposals must meet the non-impairment criteria of the BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review before the project is approved.

### Wildlife

10. Question: The budget proposes a reduction for wildlife habitat planning and development in 1989. Why? What types of actions will be reduced? Please provide a breakdown of the types of actions which will not be carried out in 1989?

Answer: At the funding level in the President's Budget level the Bureau can adequately provide for the protection and management of wildlife and fish (including T/E) habitat on Public Lands. These reductions are made possible by deferring lower priority activities. The following types of actions will be reduced:

- Inventory will be reduced on 5,700,000 acres based on a decreased need for extensive type inventories.

- Monitoring of 93 land-use and activity plans with fish and wildlife objectives on lower priority areas will be deferred.

-Habitat Management Plan (HMP) preparation/revision will be deferred on 62 habitat areas since the Bureau has sufficient numbers of plans already written.

-Implementation of 44 low priority habitat development projects identified in HMPs will be deferred.

-Annual and preventive maintenance will be deferred on 534 projects.

11. Question: For example, I am told that the Bureau has lost 33 percent of its wildlife related personnel in the past seven years. The overall number has gone down from 360 to 240. Is that right?

Answer: There has been a small decrease in the number of professionals in the areas of general biological science, including wildlife biology. This is, in part, attributed to a change from a use of those specific job series to greater use of the program management series. Over this time period there have been numerical fluctuations of between 20-40 positions in many of these occupational categories. Undoubtedly, greater numbers of wildlife biologists, range conservationists, foresters and other natural resource job category positions were required in the early 1980's for inventory work and preparation of environmental impact statements for the livestock grazing and mineral programs, which have since been completed. The following provides the earliest accurate information that we have on BLM wildlife related staffing levels between December 1982 and March, 1988.

| Discipline | December, 1982 | March, 1988 | Percent Decrease |
|---|---|---|---|
| Wildlife Biologists | 250 | 212 | 15% |
| Fisheries Biologists | 38 | 25 | 34% |
| Botanists | 20 | 15 | 25% |

12. Question: Is it also accurate that fisheries biologists have been reduced from 50 to 25? That botanists have been reduced from 56 to 25? That wildlife biologists have been reduced from 290 to 192?

Answer: The figures provided in the previous question compare the number of Fisheries Biologists and Botanists in 1982 with 1988.

13. Question: How can this be? Has Congress cut your wildlife funding by 33 percent? I know that the Bureau received an increase last year, from $16.5 million in 1987 to $18.5 million (+12 percent) in 1988. Yet the budget this year proposes a reduction of $3.6 million, from $18.5 million in 1988 to $14.9 (or -20 percent) in 1989.

Answer: In the late 1970s and early 1980s, the Bureau was involved extensively in inventory work and environmental impact statement preparation for our livestock grazing and minerals programs, especially coal. Because these specialists were working on planning, analyses and EIS preparation for programs other than wildlife and their workload was driven by the needs in these programs, they were funded by the benefitting program activities, not by the wildlife habitat management program. After that work was completed, the need for biologist specialists declined. Reductions in funding also occurred in the benefitting programs. The reductions in numbers of biologists since the early 1980's reflect that change in workload. Currently, the Bureau is re-analyzing its staffing situation and skills mix, as one follow-up to the development and approval in 1987 of a strategic plan for the Bureau's wildlife and fisheries program.

It is also important to recognize that the BLM has additional employees who are trained in wildlife or wildlife-related disciplines who are available to supplement our cadre of wildlife and fishery biologists. To give an example, some of our range conservationists have wildlife training and therefore can assist in meeting the Bureau's fish and wildlife responsibilities.

The increased funds in the wildlife habitat management program in 1988 have been used to implement plans and on-the-ground management for threatened and endangered species, fisheries and wildlife habitat improvements, and cooperative projects and partnerships with the States and a variety of other organizations.

14. Question: Let me ask you about some specific Nevada wildlife needs. For example, how much are you proposing to spend in 1989 to determine the minimum population level and the effects of other uses on the desert tortoise? How much other work needs to be done? Did the State office request additional funding?

Answer: The BLM does not provide funding for determining the minimum population level since the primary responsibility for this action resides with the Nevada Department of Wildlife. The Bureau anticipates spending $50,000 for monitoring and inventory which is aimed at assessing effects of other uses on the tortoise. The workload is anticipated to continue for several years so that trends and impacts may be determined. Additionally the Florida-Nevada Land Exchange Authorization Act requires the Secretary of Interior to review the status of the population, assess the nature and extent of threat to these populations and prepare a comprehensive plan to address such threats. It is possible that the Secretary will require some of this work to be done by BLM.

The BLM Nevada State Office did not request any additional funding for Desert Tortoise in their program request for FY 1989.

15. Question: Also, I understand that only one-half of the wildlife workload needed to monitor livestock-wildlife conflicts is being done. Is that right?

Answer: No, in 1986, it was estimated that approximately 30 percent to 50 percent of the livestock-wildlife conflict areas identified in Category I grazing allotments were being monitored at a level which provided adequate fish and wildlife information to allow the issuance of grazing decisions required as a result of the Grazing EISs. However, since that time we have increased our efforts and funding levels in both the Grazing Management and Wildlife Habitat Management programs for monitoring. We believe that now we will have adequate information to issue all grazing decisions at the end of the 5-year monitoring period.

Moreover, we have recently updated our fish and wildlife monitoring policy, and initiated an assessment of proposed and existing monitoring commitments in land-use plans, activity plans, and NEPA documents to improve the organization, definition and prioritization of the overall fish and wildlife monitoring workload.

16. Question: The budget proposes to eliminate the highly successful "Wildlife Challenge Grant" program. Yet, I understand that additional project funds are needed to match state and private desert bighorn habitat development project funding. Is that accurate?

Answer: The total of FY 1989 program requests from the BLM State Directors indicated a need of $400,000 in challenge grant funds to match $1 million in State and private sector contributions for desert bighorn sheep projects in Arizona, California, Nevada, New Mexico, and Utah. These proposals focused on water developments, reintroduction effort with Special Wildlife Areas (SWA), habitat monitoring, and HMP preparation in support of implementing the Bureau's rangewide plan for desert bighorn. Though no specific funding was identified for challenge grants, State Directors may allocate available funds toward these projects based on priorities within their states.

17. Question: I don't want you to think I am totally parochial. For example, I understand that Utah has over 100 rare plants. Do you know how many botanists they have? (One.)

Answer: Utah currently has one botanist in the State Office who provides technical assistance and leadership to the BLM field offices in Utah regarding special status plant species. Utah currently has 12 threatened and endangered plant species. In addition to the one botanist, the Bureau, has numerous employees in other specialties such as range management and wildlife biology that have substantial botanical expertise. When needed, the Bureau also can obtain assistance on specific botanical questions from other sources such as universities and other Federal agencies.

18. Question: I am told that Colorado has over 1,800 miles of fishable streams but only one fisheries biologist. Is that accurate? I am also told that Arizona, New Mexico, and Wyoming have no fishery biologists. Isn't it true they have a significant fisheries resource?

Answer: At the present time, Colorado has one fisheries biologist, located at the Colorado State Office. However, the BLM Colorado Management Team is in the process of identifying fisheries resources and staffing needs as part of a fish and wildlife program strategic planning effort. It is correct that Arizona, New Mexico, and Wyoming currently have no fisheries biologists; however, it should be noted that most wildlife biologists have some fisheries expertise. Fishery resources on BLM lands in these states are listed in Public Lands Statistics, 1987 as the following:

Fisheries Habitats on BLM Lands

| Administrative State | Lakes (000's ac.) | Reservoirs (000's ac.) | Fishable Streams (Miles) | No. of T/E or Candidate Species |
|---|---|---|---|---|
| Arizona | 1 | 28 | 439 | 17 |
| Colorado | 1 | 19 | 1,822 | 6 |
| New Mexico | 2 | 3 | 176 | 13 |
| Wyoming | 8 | 29 | 1,327 | 7 |

19. Question: I understand that you have a need for project improvements on 1,500 miles of anadromous fish streams in Oregon, Idaho, California, and Alaska; for inventory work on 3,500 miles of anadromous fish streams, particularly in Alaska; and for monitoring work throughout anadromous fish areas, but all I can find is that the Bureau has about $1.5 million budgeted for fisheries. Is that accurate?

Answer: The Bureau's Financial Management System does not collect data to allow ready separation of fisheries expenditures from the general wildlife program, but it is estimated that about $1.5 million was expended in FY 1987 for the fisheries program. This included an estimated $250,000 for T/E fish habitat management, $470,000 for resident fish, and $770,000 for anadromous fish habitat management. Expenditures will probably remain close to this figure at the FY 1989 proposed funding level.

20. Question: The work that the Bureau has done in developing its Anadromous Fisheries Habitat Plan has been well received but no money has been budgeted. Is my understanding correct that a reasonable level of effort in implementing that plan would cost $4,500,000 per year above the budget? Would you please provide a detailed response for the record?

Answer: The BLM has expended considerable effort over the past 20 years to maintain and increase natural production of anadromous fish spawned and reared on Bureau lands, especially in western Oregon. However, these efforts were not well coordinated as part of a Bureauwide fisheries program. To build on the anadromous fisheries objectives approved by the Bureau Director as a part of Fish and Wildlife 2000, a team of BLM biologists and managers prepared a report in early 1988 titled "Anadromous Fisheries Habitat on Public Lands." This document identified Bureauwide strategies for anadromous fish habitat management related to inventory, habitat project development and maintenance, improved management actions, monitoring, research, and habitat acquisition to be achieved in the next 12 years (1989-2000). This document will guide future efforts by the Bureau to maintain, protect, and enhance anadromous fish habitat on public lands.

We agree that while increased funding may reduce the time needed to improve some anadromous fish habitats, the fiscal restraints placed on budgets Government-wide require us to place greater emphasis on achieving the objectives in the Anadromous Fish Plan through overall multiple-use management strategies. As a result, full implementation may take longer than the 12-year goal set in the Plan. However, we anticipate that the improvement of anadromous fish habitats will continue to be substantial even at current levels as field offices implement anadromous fish objectives in existing site-specific activity plans (wildlife habitat management plans, grazing allotment management plans, timber management plans, etc.) and the Bureau's riparian area management initiative.

## Riparian Areas

21. **Question:** I understand that the Bureau is establishing a number of riparian demonstration areas. Would you explain that effort to us?

**Answer:** In July 1986, each BLM State Director was directed to select at least one riparian demonstration area per District. The purpose of the demonstration areas is to evaluate and demonstrate practices which may prove applicable to the future management of riparian ecosystems. It is estimated that nearly every BLM District in the west has established, at a minimum, one demonstration area for this purpose.

22. **Question:** Do I understand it correctly that habitat improvement work is called for in Riparian Habitat in 107 Habitat Management Plans? Is the total cost of that work, which would include stream fencing, tree and shrub planting, and other actions, estimated to cost over $16 million, in total? Is any of that work budgeted? How much; where? For the record, please provide a detailed response for the committee.

**Answer:** As reported in BLM Habitat Management Plan Statistics for 1987, 107 site-specific HMPs have been prepared which identify riparian habitat improvements through fencing, tree and shrub planting, construction of instream structures, etc. for 12,600 miles of stream. Total cost to implement these riparian projects is estimated at $14.6 million.

It is estimated that about $1.4 million will be expended in FY 1988 from the general wildlife habitat management budget for inventory, monitoring, and habitat improvements related to wetland/riparian areas. Because of the high priority the Bureau places on riparian area management, expenditures for FY 1989 will probably be about the same.

It should be pointed out that the Bureau takes a multi-disciplinary approach to riparian area management. Funds are also expended for riparian improvement projects in the watershed, timber, and range programs through grazing allotment management plans and range improvement efforts (8100), timber management plans, and watershed management plans. Until detailed annual work plans are prepared for FY 1989, specific dollar amounts and locations for implementing riparian related HMP's cannot be determined.

23. **Question:** I understand that the General Accounting Office has done a review of Riparian Area Improvement efforts of BLM. What did they conclude about the potential restoration of degraded areas?

**Answer:** In summary the GAO's findings are:

1. An overriding factor in achieving success in restoring riparian areas is improving management of livestock to give native vegetation more opportunity to grow;

2. Ranchers holding permits to graze their livestock on federal rangelands play an important role in the riparian area restoration process;

3. No major technical impediments need to be overcome in order to improve riparian areas;

4. The number of successes is small compared with the area still needing riparian area restoration; and

5. The pace of restoring riparian areas will likely remain very slow for two main reasons

   A. Agencies have substantially reduced the number of skilled staff essential to carry out their riparian area management policies; and

   B. Field staff believe that if their proposed actions for restoring riparian areas are opposed by rancher, managers will not support the field staff.

It should be noted however, that the Bureau does not universely agree with these findings. In several instances their findings appear to be subjective based upon one-time observations. Additionally, the Bureau feels that GAO's findings that BLM does not make riparian area management a high priority is unfounded. Following is a list of specific initiatives associated with riparian management that the Bureau has instituted the past few years.

The FY 1986, 1987, and 1988 Annual Work Plan Directives from headquarters to the field offices established management of riparian/wetland areas as one of the highest priorities in the Bureau's fish and wildlife, watershed, and range programs. The current program includes input of riparian considerations into land-use and activity plans, riparian area monitoring, and habitat improvement projects.

In January of 1987, the Bureau Director signed a Riparian Area Management Policy, which stresses the interdisciplinary, multi-resource character of riparian area management and that all programs - range, watershed, forestry, wildlife, lands, minerals, etc., have the responsibility to assure that the basic riparian area components of soil, water, and vegetation are taken into consideration when conducting their program activities.

There has been increased emphasis and application of the "riparian pasture concept" in the field. This is a concept in which livestock grazing is permitted only when and where it is compatible with maintaining and enhancing riparian habitat values.

The BLM Director has required that each District Office develop at least one riparian demonstration area, where the best management practices and instream habitat improvement work have been or will be implemented.

Five BLM State Offices have developed Supplemental Riparian Policies, and all States have prepared Riparian Management Strategies.

Public information materials on riparian management, including fact sheets, videos, slide shows, and displays, have been distributed to field offices.

There has been increased "riparian consciousness" among BLM resource specialists and managers and public land users through BLM-sponsored workshops and tours.

24. Question: For example, please provide, for the record, a 1987, 1988, and 1989 summary of the threatened and endangered species, by species, in Nevada and in other states.

Answer: We do not have totals for 1988 or 1989 as yet. Below is a roster of number of species listed, and candidate species, by State for 1987.

T/E & Candidate Species, 1987

| | Plants | Animals | Total | Total Candidate |
|---|---|---|---|---|
| Arizona | 9 | 15 | 24 | 105 |
| Alaska | 5 | 5 | 10 | 31 |
| California | 6 | 16 | 22 | 352 |
| Colorado | 7 | 7 | 14 | 48 |
| Idaho | 1 | 6 | 7 | 39 |
| Montana | 8 | 7 | 15 | 19 |
| Nevada | 7 | 20 | 27 | 94 |
| New Mexico | 10 | 10 | 20 | 80 |
| Oregon | 2 | 7 | 9 | 116 |
| Utah | 12 | 13 | 25 | 132 |
| Wyoming | -- | 7 | 7 | 30 |
| Eastern States Office | 16 | 13 | 29 | N/A |
| Totals | 83 | 126 | 239 | 1046 |

25. Question: Also, what is the number of Wildlife and Fishery Biologists, and Botanists, by state, for the same years? And FTE's assigned to threatened and endangered plants, by state?

Answer: The following table reflects the on-board wildlife and fishery biologists and botanists for 1987 and 1988. We are unable to predict by state how many and where these disciplines will be in 1989, but it is doubtful that there will be any significant deviations from 1988.

Summary of Employees
On Board January, 1987 and March, 1988

| | Wildlife Biologists | | Fishery Biologists | | Botanists | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1987 | 1988 | 1987 | 1988 |
| Alaska | 8 | 7 | 2 | 4 | 0 | 0 |
| Arizona | 13 | 21 | 0 | 0 | 3 | 2 |
| California | 21 | 21 | 1 | 1 | 1 | 3 |
| Colorado | 14 | 14 | 3 | 2 | 0 | 0 |
| Idaho | 23 | 24 | 2 | 2 | 1 | 1 |

| | Wildlife Biologists | | Fishery Biologists | | Botanists | |
|---|---|---|---|---|---|---|
| | 1987 | 1988 | 1987 | 1988 | 1987 | 1988 |
| Montana | 17 | 17 | 1 | 1 | 0 | 0 |
| Nevada | 19 | 21 | 1 | 1 | 0 | 0 |
| New Mexico | 13 | 12 | 0 | 0 | 0 | 2 |
| Oregon | 29 | 33 | 9 | 10 | 4 | 6 |
| Utah | 20 | 18 | 2 | 1 | 0 | 1 |
| Wyoming | 17 | 17 | 2 | 0 | 0 | 0 |
| Denver Service Ctr. | 3 | 3 | 1 | 1 | 0 | 0 |
| Eastern States | 0 | 1 | 0 | 0 | 0 | 0 |
| Washington Office | 4 | 3 | 1 | 2 | 0 | 0 |
| Total | 201 | 212 | 25 | 25 | 9 | 15 |

The Bureau does not assign or manage FTE to specific programs such as threatened and endangered plants. FTE ceilings are managed on organizational levels and FTE utilized represent the work-years of effort expended in a given program area. Bureauwide we used 78 FTE in the T/E program in 1987. It is estimated that approximately 15 percent of the program is related to work on plants.

## Recreation

26. Question: The committee provided $200,000 in additional funding for the Red Rocks Visitors Center, and an additional 5 FTE's, in fiscal 1988. What is the 1989 FTE and funding proposal for Red Rocks? Is being kept open 7 days per week? Is there still a need for additional law enforcement staffing?

Answer: In fiscal year 1989, we propose to fund the Red Rocks Visitors Center at the same level as in fiscal year 1988.

We are in the process of hiring the additional staff required to operate the Visitor Center on a 7-day a week basis starting in FY 1988. The proposed fiscal year 1989 funding level will keep the Visitor Center open on a 7-day a week basis.

The funds provided in fiscal year 1988 also were adequate to meet the additional law enforcement staffing needs for the area. Two new law enforcement rangers are among the staff added in fiscal year 1988.

## Wild Horses and Burros

27. Question: I know the bureau would like to look forward, not backward, and I hope it can assure me, and others on the Committee, that it is taking this Cudworth case in North Dakota seriously. What is the Bureau doing now, and what has it done since the horses were moved on January 25, to improve its management of the program?

Answer: Since January, the Bureau repossessed the animals and returned them to our horse maintenance facility in Bloomfield, Nebraska. The condition of the repossessed animals has improved significantly. We have initiated an investigation to determine the cause for the problems associated with this adoption. In addition, individual offices involved in the fee waiver program have been increasing the number of compliance inspections required in areas where environmental conditions will cause extra stress on the adopted animals. We are also reviewing steps taken by the local office to determine what procedures need to be modified to prevent any reoccurrence of this unfortunate situation.

Additionally, we have suspended this program and will no longer approve waivers of the adoption fee except for non-profit groups.

28. Question: I understood that the case has been referred to the local U.S. Attorney. Do you anticipate grand jury review? Indictments?

Answer: The case investigation has been completed and a report has been filed with the U.S. Attorney in North Dakota. The decision to prosecute or not will be made by the U.S. Attorney. Therefore, we are not able to predict whether there will be referral to the grand jury or indictments.

29. Question: What action has the Bureau taken regarding its own staff in this case? Have there been any disciplinary actions, or are any contemplated?

Answer: We have not yet determined whether any action is necessary regarding Bureau employees in this case. No decision concerning possible disciplinary action will be made until after our internal review has been completed.

30. Question: Regarding various sanctuary proposals, would you briefly summarize those for me at this time, and please be sure to indicate what the approximate costs will be over time.

Answer: We have been in contact with several groups interested in developing proposals to establish sanctuaries. To date only one written proposal for establishment of sanctuaries has developed to the point where enough specifics are available to summarize. This proposal is outlined in a Memorandum of Understanding among the 4 parties involved and appears to meet BLM program objectives. The proposal was prepared by the Institute of Range and the American Mustang, a non-profit group and also involves both the State of South Dakota and the South Dakota Community Foundation. Although the specifics have not been completed, for a cost of approximately $1 per day per animal, the group will operate a sanctuary and provide feed, water, and normal veterinary care for up to 3,000 animals in a rangeland setting on privately owned lands where the animals will be allowed to roam freely. If funding is included in the FY 1989 Appropriation Act, federal support would continue until sufficient private funding becomes available to make the sanctuary self-sustaining but under no circumstances for more than 3 years. The sanctuary concept is part of the Bureau's overall effort to phase out of the fee-waiver adoption program which has provided the primary outlet for the older and less adoptable wild horses. Our ability to increase the regular adoption program and the number of animals removed from the public lands will determine the number of animals that will ultimately be placed in sanctuaries. Over the long term, we expect to place between 3,000 to 6,000 wild horses in sanctuaries. This number of animals would cost approximately $2.4 million to $5 million over the next several years. Thereafter, funding for the sanctuaries would come from private sources.

31. Question: I guess I am not persuaded that a sanctuary program will necessarily solve all these problems. If sale authority is not granted by Congress, what do you want the Committee to do in its 1989 mark-up for the wild horse program?

Answer: If sale authority is not provided for FY 1989, BLM believes there are two options which could be adopted. Option 1 would consist of the following: (1) continue to remove enough animals (8,400) to reach the projected Appropriate Management Levels (AML) by FY 1991 instead of 1990 as identified in the FY 1989 Justification, (2) adopt 8,000 animals through the regular adoption program, (3) provide prison training facilities for up to 2,000 wild horses, and (4) provide space in private land sanctuaries for approximately 2,000 animals. We estimate that this program would cost a total of $14.7 million in FY 1989.

Option 2 would consist of the following: (1) remove no animals and defer reaching AML until 1992 instead of 1990 as identified in the FY 1989 Justification, (2) adopt 5,400 animals using regular adoption and already approved fee waiver applicants, (3) provide no animals to prison or sanctuary programs, and (4) allow animals on public range lands to increase from 39,500 to 45,000. It is estimated this program would stay within the President's Budget estimate of $7.5 million.

### Hazardous Waste

32. Question: What is the status of the Union Pacific right of way Hazardous waste site near Leith, Nevada? At one time, I understood that the Bureau was attempting to involve Union Pacific in the investigation and resolution of risks at this site.

Answer: A BLM contractor is now completing final plans for a site investigation of the buried rail car and its hazardous cargo. The final report from that site investigation (expected in the fall of 1988) will contain an assessment of the risk of a further release of hazardous substances at the site. The Bureau and Union Pacific Railroad (the company that owns the buried car) are negotiating the sale of the land where the release took place and the rail car is buried.

33. Question: Does the Bureau know of other hazardous waste site problems in Nevada? I note that the Bureau's 1989 budget proposes an increase of $6,528,000 (or +111 percent) to $12,408,000 for the Hazardous Material Program. Will any of that increase be provided to Nevada? Please provide a detailed list of activities for the record. (Page 104)

Answer: The current Federal Facilities Docket (which was established by section 120 of the Superfund Amendments and Reauthorization Act) lists 48 potential hazardous substance release sites on the public lands in Nevada. Of the 48 sites, 44 have been the subject of preliminary assessments by the Bureau and were found not to be contaminated. The remaining four sites (the Union Pacific Tank Car Site, the Antelope Valley Pesticide Site in Lander County, the Quinn River Valley Site in Humboldt County, and the Bunker Hill Mine at Pioche) will be the subject of more detailed site investigations (the means of assessing risk) to be completed by January 1989.

If the funding level for the program contained in the President's Budget is enacted, the Nevada State Office will receive additional funding in FY 1989 to upgrade its management and technical capabilities to deal with hazardous materials issues in the areas of:

- providing input and assistance for the preparation of the statewide hazardous materials map to be used by fire personnel,
- and implementation of the state's Hazardous Materials contingency plan,
- providing additional training for Bureau personnel in the area of hazardous materials.

Until the site investigations identified above are completed, the Bureau will not know if specific site-related funds for remedial actions will be needed.

### Automated Records System

34. Question: The budget proposes a large increase (of $9.5 million, or +70 percent) for the Automated Land and Mineral Records System (ALMRS) in 1989. The schedule calls for testing the system in one Pilot State, beginning in 1992, with the entire system being fully installed by the end of 1993. How will the Bureau be able to begin one pilot test in 1992 and yet have all the systems installed by the end of 1993? This does not seem reasonable. Is there a more reasonable implementation schedule, which the committee can review? Please provide for the record the ALMRS evaluation which was performed by the Federal Computer Performance Evaluation and Simulation Center.

Answer: BLM has established an ALMRS implementation schedule which calls for complete Bureauwide implementation by the end of FY 1993. The timing of the operational testing in the BLM Pilot State Office is one aspect of the schedule that is somewhat flexible since it is not possible to tell how long it will take to evaluate how well the system will operate. The key milestone in the schedule in this regard is the initial hardware delivery to the Pilot State, the Denver Service Center, and the Washington Office scheduled in August of 1991. Immediately after this equipment becomes operational, BLM will begin to test software modules to ensure that they operate as intended on the hardware being acquired. After this testing period is complete, Pilot State implementation as mentioned in the BLM Justification document can begin. This phase involves resolution of issues surrounding equipment installation, employee training, system maintenance, and system management. If the definition of pilot testing is read to include the operational testing, then the schedule is to begin pilot testing in August of 1991 with pilot state implementation in June of 1992.

Pilot testing will be completed when it is determined that the system performs the job that it is intended to accomplish. BLM is developing evaluation criteria to make this determination. Obviously the time it will take to complete pilot testing will depend upon the number and severity of problems found in the system as provided by the contractor, and the time that it will take to correct them. Based upon its analysis, and the recommendations of outside contractors, BLM believes that it is reasonable to assume that between the time that the initial acquisition of system hardware occurs in August of 1991 and the end of 1993 that the system can be adequately tested, adjusted and fully implemented bureauwide.

A copy of the Federal Computer Performance and Simulation Center's evaluation of the ALMRS project is a very lengthy document and is being provided to the Committee.

## Recreation Special Account

35. Question: The appropriation language proposed for the MLR appropriation includes a reference to $1,000,000 to be derived from the special fee account established pursuant to the Budget Reconciliation Act. Will this $1,000,000 be scored (by OMB) differently than if the appropriation were made from the General Fund? If not, why should the committee adopt the Proposed Language change?

Answer: The $1,000,000 appropriation to be derived from the special recreation fee receipt account will not be scored any differently by OMB and will be counted against the BLM's budget authority limitations. Recreation receipts are already considered as offsetting proprietary receipts netted against Department of the Interior gross Budget Authority needs. The proposed language change is needed to appropriate funds from the special account, which are collected from recreation users of the public lands, to fund BLM's recreation management and maintenance work related to these recreation uses. If not appropriated to the BLM, the fees collected will remain in the special account but will not be available for use to BLM.

## Arizona

36. Question: BLM currently provides an active role in the supervision of Indian Minerals and Oil Leases in Arizona. For example, I understand that the Bureau provides supervision over coal leases on the Navajo and Hopi Indian Reservations. What level of effort does this activity require? Please compare 1987, 1988, and 1989 levels of expenditure and FTE's devoted to this effort?

Answer: Arizona's coal management program consists of inspection of exploration and mining operations on Indian lands. Coal is produced from the Black Mesa and Kayenta mines, which are located on the Navajo and Hopi Indian Reservations. Approximately 12 million tons of coal are produced from these two mines annually.

The BLM responsibilities in connection with these Indian land operations consist of inspecting mining operations, ensuring maximum economic recovery of the leased coal deposits, ensuring compliance with the conditions of the approved mine plan, verifying the accuracy of coal production reported to the Minerals Management Service (MMS), reviewing and approving exploration and mining plans, maintaining and updating the Solid Leasable Mineral System data, assisting the Indian Tribes in negotiating lease terms and maintaining lease case-files.

Separately, the Office of Surface Mining (OSM) is responsible for inspection and enforcement of SMCRA provisions on Indian Lands.

Two (2) FTE's are used to accomplish this workload on Indian lands. Expenditures have been approximately $70,000 in FY 1987 and are expected to remain about the same in FY 1988 and FY 1989.

37. Question: The BLM also provides for 38 producing oil and gas wells on Navajo Land, under a cooperative management agreement. What does this activity cost? What is the source of the funding? What does the Navajo Tribe provide?

Answer: The cooperative agreement with the Navajo Tribe has an annual cost of $40,000 which is shared equally by the Bureau and the Tribe. BLM funding is provided from the MLR oil and gas program.

38. Question: I understand that the Santa Rita Experimental Range near Tucson has been suggested as a source of land to be transferred to the state, in compensation for land provided in support of the Central Arizona Project Lands. Is that accurate? Please provide a full explanation of this proposal, and other similar proposals, for the record.

Answer: Federal and state agencies involved in the Santa Rita Exchange include the U.S. Bureau of Reclamation, the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Arizona State Parks Board, the Arizona State Land Department and the U.S. Bureau of Land Management (BLM).

The Santa Rita land exchange has mutual benefit for both the State of Arizona and the Federal Government. The proposal is to transfer the 51,000-acre Santa Rita Experimental Range, south of Tucson, to the Arizona State Land Department. The Range will continue to be managed by the University of Arizona for ecological and range research. The Santa Rita Experimental Range is presently withdrawn public land for the U.S. Forest Service, Rocky Mountain Forest and Range Experiment Station, Fort Collins, Colorado, but operated by the Univ. of Arizona.

This exchange will satisfy a significant number of Federal needs for or interests in State lands in Arizona. These include the Bureau of Reclamation's need for an additional 3,000 acres of State land for the Central Arizona Project canal, and about 25,840 acres for the New Waddell Dam; the transfer of 5,500 acres in Catalina State Park to assure continued long term management as a park; the acquisition of 80,000 acres of State Land within the boundaries of the Buenos Aires National Wildlife Refuge; the acquisition of 17,000 acres of State land within the National Forest in the Flagstaff area; and the acquisition of about 58,000 acres of State land in the Black Canyon area containing exceptional cultural resource, wildlife and riparian values. The State of Arizona will be repaid for the debt of 12,000 acres of State land taken for the Central Arizona Project and New Waddell Dam, and will also receive 2,457 federal acres which lie along the Colorado River.

Because of the National Wildlife Federation vs. Burford lawsuit, Congressional action will be needed to revoke the Santa Rita land withdrawal in order to exchange any of the lands and to add lands in the Coronado National Forest.

Senator Dennis DeConcini, has taken the lead for the Arizona congressional delegation in drafting legislation to accomplish the complex exchange and administrative adjustments.

Since BLM does not need legislation to effect an exchange for lands coming to it in this effort, BLM's primary involvement has been as a facilitator of the exchanges and other actions between the various parties.

39. Question: Arizona has, I believe, 84 WSA's totalling 2.1 million acres. What usage is currently being made of those acres? Have violations of WSA's been a major problem in Arizona? Please provide a list of those violations, along with a status report on enforcement efforts.

Answer: Uses such as livestock grazing, wildlife management, mineral exploration, hunting, camping and sightseeing continue to occur in the Wilderness Study Areas (WSAs). Vehicle use is allowed in the WSAs on vehicle routes that were present in the areas at the time they were designated as wilderness study areas. The identification of the 84 WSAs in Arizona did not significantly change the resource uses that were occurring prior to WSA status.

The WSAs are being managed under the Bureau of Land Management's Interim Management Policy (IMP) which requires that any newly authorized uses in the WSAs not impair the wilderness values of the area. The BLM uses an extensive monitoring program to ensure that violations ofthe IMP do not occur. These efforts have been quite successful in Arizona and violations have not been a major problem.

There have only been 7 minor violations of the IMP since 1984 in Arizona. These violations have included the blading of 6 vehicle access routes and the construction of 1 water well pad. Four of the blading activities were associated with mineral exploration, one with utility line maintenance, and 1 with county road maintenance. The water well pad clearing was grazing related. All 7 of the violators were notified of the violation, and in all cases, restoration work was required. All of these violations were minor, and total reclamations costs per project were $2,000 or less.

40. Question: The committee understands that some WSA's are receiving increases in grazing uses. There has been concern that its increased level of grazing usage will be "Grandfathered" into WSA's which are later designated as wilderness. For the records, please list the grazing usage and permit capacity for each WSA at the time of their designation and in 1987, 1988, 1989, and an analysis of this data.

**Answer:** The Interim Management Policy for WSA's provides flexibility to increase livestock grazing use in WSA's if information from rangeland studies substantiates that additional forage for livestock grazing is available and when an environmental assessment shows the increase will not impair the wilderness characteristics of the WSA.

The increased livestock grazing is initially a temporary nonrenewable authorization that can be terminated by the BLM Authorized Officer whenever monitoring information shows the increased livestock grazing use may impair the wilderness characteristics of the WSA.

Conversely, if monitoring information shows the increased grazing use does not impair the wilderness characteristics of the WSA's, the temporary nonrenewable authorization may become a permanent increase to the grazing preference. This increase would be "grandfathered" into WSA's that may be later designated as wilderness.

The BLM is not able to prepare a table identifying grazing usage and permit capacity for each WSA. This type of information is maintained by grazing allotment and there has been no attempt to determine what portion of a WSA is within an allotment nor what proportion of the grazing capacity of the allotment is located within a WSA.

However, there is only one allotment where livestock grazing use has been authorized above the amount that was authorized when the WSAs within the allotment were designated. This allotment is in Oregon. The increased use is being closely monitored to assure impairment of wilderness characteristics does not occur.

41. **Question:** The committee started a new program a few years ago aimed at helping Desert Bighorn Sheep recovery. What is the status of such efforts in Arizona? Nevada? Other States?

**Answer:** Over the past 4 years, the Bureau has accelerated recovery efforts of desert bighorn sheep as a result of challenge grant funding. In 1987 the BLM along with state wildlife agencies and private organizations interested in desert bighorn conservation developed a "Rangewide Plan for Managing Desert Bighorn Sheep Habitat" which will serve as a blueprint and guide for managing desert bighorn habitat for years to come. The rangewide plan was completed in January of 1988 and signed by Director Burford.

As identified in the rangewide plan, the status of desert bighorn sheep on BLM administered lands is as follows:

- o 32 habitat areas are currently supporting viable populations (100+ animals). The management goal is to maintain and enhance these habitat areas.
- o 60 habitat areas with remnant herds (less than 100 animals) are capable of supporting viable populations. The management goal is to maintain and enhance present habitat conditions to support viable populations.
- o 23 habitat areas which historically contained bighorn sheep are now unoccupied but are capable of supporting viable populations. The management goal will be to

enhance conditions of 3 existing habitat areas to allow reintroduction and re-establishment of viable populations.

42. Question: This committee has also taken the lead in providing money to manage the San Pedro area. What is the current status of efforts to designate the area as the San Pedro Riparian National Conservation Area?

Answer: A bill to establish the San Pedro Riparian National Conservation Area in Cochise County, Arizona was passed in the House on March 24, 1987 (HR 568 and S 252). Subcommittee hearings were held and completed by the Senate Energy and Natural Resources Committee on April 30, 1987. There has been no further action since April 30, 1987.

43. Question: For Arizona, please provide a detailed description of the types of activities anticipated in the 8 Riparian demonstration areas.

Answer: According to our records, BLM has established 5 riparian demonstration areas in Arizona. Those areas are Burro Creek in Phoenix District, Bill Williams River in Yuma District, Bonita Creek in Safford District, and Bull Rush Wash and Red Rock Springs in Arizona Strip District. The remaining 3 demonstration areas identified in your request may be riparian areas associated with older watershed projects and/or land exchange program. These may be the San Pedro River, Mule Shoe Creek, Aravipa Canyon and San Simon River which are areas being actively managed to improve riparian and watershed values but they are not included in the State's demonstration area list. Types of activities planned in 1989 for each of the 5 demonstration areas include the following:

1) Burro Creek
   - -plant 500 cottonwood and willow seedlings with the assistance of volunteer labor.
   - -riparian inventory for wildlife habitat.
   - -four out of the 5 AMP's in the drainage be implemented.

2) Bill Williams River
   - -construct 5 miles of exclosure fence.
   - -monitor enclosed plots.
   - -install stream gaging station of the River.
   - -repair 3 wells for off-site wildlife use.
   - -install interpretive signs for the public.

3) Bonita Creek
   - -continued monitoring vegetation and water resources conditions.
   - -maintain cooperative agreement with city of Safford for assuring uses that are compatible to maintaining high quality water.
   - -pursue State Unique Waters Designation.

4) Bull Rush Wash
   - -maintenance of facilities and monitoring of vegetation and water resource conditions.

5) Red Rock Springs
-maintenance of facilities and monitoring of vegetation and water resource conditions.

44. Question: What conflicts are anticipated with grazing allotments? Other uses?

Answer: During portions of the growing/grazing season, riparian sites are usually preferred by livestock over upland sites on arid and semi-arid ranges because of the presence of water, lush forage, more consistent regrowth, cooler air, shade, and typically flat terrain. In areas where it is determined that livestock grazing has been a factor in degrading a riparian area, BLM believes significant improvement can be attained by changing grazing practices. Managing grazing allotments for the improvement of riparian areas may include changes in season of use, utilization, duration of grazing, or forced movement. Other activities such as mining, road construction, timber harvest, and recreation use also often may conflict with riparian area management objectives.

45. Question: What types of conflict management strategies can be used to reduce Riparian Area conflict between grazing and other uses?

Answer: Conflicts between grazing and other uses (uses dependent on riparian area values) can be resolved through management prescriptions. Perhaps more importantly, management strategies can include educational programs for increased awareness and effective coordination, communication, and consultation, with all land users. As shown in the GAO report, there are many successful cases where good riparian area management provides multiple-use resource benefits, with livestock grazing being no exception.

Restoration of perennial streamflow in degraded riparian areas has made water available to livestock during normally dry summer months. For example, changes in grazing on Bear Creek in central Oregon have resulted in an increase from 72 to 313 animal unit months forage while simultaneous enhancement of the riparian area has occurred. Additionally, ranchers have saved over $10,000 annually in hay costs. The Bureau anticipates further resolution of conflicts through greater emphasis on incorporating riparian management into overall range management strategies.

46. Question: I understand that the Bureau plans to establish a network of permanent study plots to monitor desert tortoise populations, during 1989. Will this activity be completed in 1989? If not, what will be accomplished in 1989?

Answer: The Bureau has been establishing permanent study plots for desert tortoise populations since 1973. During that period there have been at least 32 plots established. These plots are usually one square mile (640 acres) in size and located in what is thought to be the best tortoise habitat in the area. Each of these plots is resurveyed every 4 or 5 years to determine if there have been any changes in the population. Factors monitored include: number of tortoises per square mile (density), sex and age ratios, habitat condition, mortality, and other factors that are important for management decisions.

During FY 1989 we plan to establish 2 or 3 new plots in Arizona and perhaps 2 new plots in California. Our primary activity will be directed toward re-reading monitoring plots in all four States with desert tortoise populations. These are California, Arizona, Nevada, and Utah. In total we plan to complete studies on approximately 8 study plots in FY 1989.

47. Question: Hazardous materials continue to be found on BLM land at an alarming rate. How many landfills are on BLM Lands in Arizona? Nevada? Other States? How many of these have been inventoried or assessed for Hazardous Materials? What other types of Hazardous sites are being found on BLM land?

Answer: The number of landfills on the public lands being operated by local jurisdictions under use authorization arising from the Recreation and Public Purposes Act are:

| STATE | NO. OF SITES |
|---|---|
| Arizona | 37 |
| California | 54 |
| Colorado | 16 |
| Idaho | 41 |
| Montana | 6 |
| Nevada | 44 |
| New Mexico | 52 |
| Oregon | 19 |
| Utah | 32 |
| Wyoming | 36 |
| Total | 337 |

Of these sites, 22 landfills have been the subject of a preliminary assessment and/or site investigation. An additional 30 landfills have PAs or SIs underway that will be completed in 1988. Thus a total of 52 will have been assessed by the end of 1988.

Other types of hazardous materials sites found on the public lands over the last 5 years have included mines, pesticide disposal sites, railroad facilities, and drug manufacturing sites.

48. Question: I understand that cultural resources and archaeological sites continue to be destroyed. How many FTE's is the Bureau devoting to this problem, by state, in 1987, 1988, 1989?

Answer: In FY 1987, the BLM devoted 50 FTEs and $2.2 million from the MLR cultural resources management program for archaeological/cultural site management and protection. The approximate breakdown by BLM State Office is: Alaska (0.3 FTE), Arizona (4 FTE), California (6 FTE), Colorado (10 FTE), Idaho (8 FTE), Montana (2 FTE), New Mexico (4 FTE), Nevada (4 FTE), Oregon (2 FTE), Utah (8 FTE), and Wyoming (2 FTE). We plan to maintain this level of funding and staffing in FY 1988 and 1989, although shifts in state allocations may occur depending on Bureau priorities and state needs.

49. Question: Energy and minerals activity in Arizona is proposed for about a 15 percent reduction in 1989 from 1988 (?) levels. Why? What impact will this reduction cause? Please provide workload data to support this proposal.

Answer: Although the FY 1989 President's Budget levels propose a reduction overall in the energy and minerals management budget activity, final allocations to individual BLM State Offices are not made until after passage of the Interior Department Appropriations Act. We recognize that the briefing paper on Arizona did show a decrease in energy and minerals management funding; however, this estimate was based on an equally distributed reduction across all states. Any actual reduction will not be accomplished until we have received our appropriations and made an assessment of program objectives and state specific responsibilities.

Idaho

50. Question: I understand that the state has developed an effort concerning bonding, in order to avoid redundant bond coverage for surface management. Please explain this program for the record.

Answer: In Idaho and six other States (Montana, Wyoming, Colorado, California, Oregon, Washington), cooperative agreements provide for joint State/Federal enforcement of the surface management regulation programs. The cooperative agreement for the joint State/Federal program in Idaho was signed on January 28, 1987.

Operations conducted under a State reclamation bond in a State which has entered into a cooperative agreement with BLM also satisfy BLM's bonding requirements. Bonds are generally held by the State agencies, in amounts required by state laws, and are subject to attachment on either the BLM's or State's action.

These agreements generally make maximum use of State agency powers and personnel, acting in concert with BLM, to review and approve operations and to specify reclamation standards. To ensure compliance with the State and the Federal requirements, both parties participate in monitoring and compliance examinations. Enforcement actions, when taken, are generally under state authorities.

51. Question: What is the current status of the Bureau's bonding requirements -- what is requested, and of whom?

Answer: The current policy for bonding of operations for all states is as follows:

1) Operators conducting operations under a State reclamation bond have satisfied BLM's bonding requirements. This currently includes all the public land States except Arizona, New Mexico, and Nevada.

2) If an operator who has posted a State reclamation bond establishes a record of noncompliance, a proper additional bond must be filed with the Bureau for one year or until the involved redisturbance is reclaimed.

3) Discretionary bonding of mining operations at the plan level is allowed.

4) Discretionary bonding of exploration operations at the plan level is not allowed.

5) Discretionary bonds will not be required of any operator at the casual use or notice levels since they do not need Bureau approval before conducting such operations.

6) Bonds may be required of those operators whose operations are located in a special category listed in 43 CFR 3809.1-4(b).

7) Any casual use or notice level operator who establishes a record of noncompliance must be required to conduct all further operations under a mandatory plan of operations and must post a proper bond.

8) Bonds are set only in the amount of the costs estimated to be needed to reclaim surface disturbance.

9) When a BLM bond is required, the regulations allow one of the following: a surety bond, maintenance of a cash deposit in the amount of the bond in a Federal depository account of the United States Treasury, or deposit of negotiable securities of the United States having a market value of not less than the required dollar amount of the bond.

52. Question: A few years ago, the committee requested a review of the reforestation and TSI program on Public Domain Lands. Reforestation and TSI efforts were significantly below the rate required for sustained yield management. Please update that analysis and summarize the reforestation/TSI needs it identifies, by state, it identifies.

Answer: Because total program needs have changed substantially since 1984 due to improved inventory information, changes in forest product markets, and shifts in the commercial forest land base resulting from land exchanges and/or planning decisions, an update of the 1984 analysis is scheduled for completion in FY 1989. Progress made since 1984 has resulted in the Bureau's keeping current with immediate reforestation/TSI needs, and a reduction in backlog acres.

The following table shows the reforestation/TSI accomplishments by individual BLM States since 1984.

Reforestation (in acres)

| State | 1985 Congressional Report Estimates of Backlog Acres | Backlog Reduction Accomplishments | Total Program Accomplishments |
|---|---|---|---|
| California | 3,563 | 894 | 1,351 |
| Colorado | 5,063 | 770 | 770 |
| Idaho | 1,669 | 1,096 | 1,322 |
| Montana | 7,010 | 951 | 1,289 |
| Eastern Oregon | 2,808 | 380 | 734 |
| Wyoming | 2,800 | 1,072 | 1,072 |
| Total | 22,913 | 5,163 | 6,538 |

TSI (in acres)

| State | 1985 Congressional Report Estimates of Backlog Acres | Backlog Reduction Accomplishments | Total Program Accomplishments |
|---|---|---|---|
| California | 663 | 988 | 1,082 |
| Colorado | 334 | 353 | 562 |
| Idaho | 2,408 | 418 | 418 |
| Montana | --- | 662 | 1,114 |
| Eastern Oregon | 15,704 | 0 | 1,321 |
| Wyoming | 3,847 | 1,986 | 1,986 |
| Total | 22,956 | 4,407 | 6,483 |

53. Question: Please provide a summary of the Noxious Weed Program, by state, for FY-1987 and 1989, in terms of acres and dollars.

Answer:

| | FY 1987 | | FY 1988 | |
|---|---|---|---|---|
| State | Acres | Costs | Est. Acres | Est. Costs |
| Arizona | 0 | $ 0 | 300 | $ 10,000 |
| California | --- | 2,000 | 300 | 10,000 |
| Colorado | 400 | 11,000 | 500 | 15,000 |
| Idaho | 8,000 | 173,000 | 10,000 | 200,000 |
| Montana | 6,000 | 304,000 | 6,000 | 220,000 |
| Nevada | 400 | 8,000 | 400 | 10,000 |
| New Mexico | --- | 1,000 | 300 | 10,000 |
| Oregon | 28,900 | 119,000 | 30,000 | 190,000 |
| Utah | 3,700 | 180,000 | 4,000 | 200,000 |
| Wyoming | 9,000 | 143,000 | 10,000 | 185,000 |
| | 56,400 | $941,000 | 61,800 | $1,070,000 |

| | FY 1989 | |
|---|---|---|
| State | Est. Acres | Est. Costs |
| Arizona | 0 | $ 0 |
| California | 300 | 10,000 |
| Colorado | 600 | 20,000 |
| Idaho | 10,000 | 220,000 |
| Montana | 6,200 | 225,000 |
| Nevada | 400 | 10,000 |
| New Mexico | 300 | 10,000 |
| Oregon | 30,000 | 190,000 |
| Utah | 4,000 | 200,000 |
| Wyoming | 10,000 | 185,000 |
| | 61,800 | $1,070,000 |

54. Question: **Does the Bureau anticipate a need for additional funding for grasshoppers? How much is available if needed?**

Answer: The Bureau does not anticipate the need for additional funding for grasshopper control in FY 1989. Currently the Bureau has $4.8 million of no-year funds available for assistance to APHIS. The anticipated expenditures in FY 1988 are not expected to exceed $250,000 and no major outbreaks are projected.

55. Question: **What is the current status of efforts to provide protection to the Hagerman Fossil Fauna Site? Have the funds provided by the committee in 1988 been used?**

Answer: In the FY 1987 Interior Appropriations Act, BLM was provided $600,000 for protection of the Hagerman Fossil Fauna Site, and an additional $30,000 for a soil stability study was provided in the FY 1987 Supplemental Appropriations Act. No funds for the Hagerman site were specifically appropriated in FY 1988.

The 1987 funding provided to BLM was used for a cooperative agreement with the Bell Rapids Mutual Irrigation District for construction of a pipeline and lining of the north canal. The canal lining was completed in the spring of 1988 and the canal is now in operation. All funding has been expended and the cooperative agreement has been closed out. The contract for the soil stability study has been obligated and work is in progress. We expect to have a final report by December, 1988.

56. Question: **Also, provide a summary of efforts to date at the City of Rocks, along with future needs.**

Answer: BLM has been, and continues to be, very involved in the management of the City of Rocks area. BLM has the lead role in finalizing and implementing the Intergovernmental Memorandum of Understanding for the management of the area. BLM has maintained the area and provided visitor services for many years, including activities such as garbage collection, restroom maintenance, environmental education programs for schools in the area, upgrading trails, traffic counter data collection, etc. We have also entered into a law enforcement agreement with the Cassia County Sheriff's Office for protection in the area, and recruited and supervised a volunteer who monitored the area during the summer months in the past. BLM has also worked cooperatively with the other involved agencies in the development of erosion control projects, development and printing of brochure for area, and provision of a trailer for office space and living quarters for a temporary employee who will care for the area this coming summer.

The 1989 President's Budget provides adequate funding for continuing management of the City of Rocks area and in light of the large federal deficit, additional funding for the area is not appropriate or a priority need at this time. Future needs in the area would be evaluated against other Bureau priorities. Currently identified future needs include: acquisition of 400 acres in several small parcels within the area, development of a small picnic area and campground with a visitor contact station, hiking trails, and interpretative signs for the protection of the natural and historic resources.

57. Question: What is the status of rehabilitation efforts as a result of the fires in recent years? How many acres are protected by "Greenstripping" in 1987, 1988, and 1989? What is the status of research?

Answer: As the result of fires that occurred in 1987, the Bureau has approved 39 plans to rehabilitate approximately 55,000 acres. The projected costs of these rehabilitation projects is $6.8 million. The majority of the cost ($5.1 million) will be expended in Oregon related to reforestation efforts on the three major 1987 burn areas that involved high value commercial timber lands. When completed in 1989, 11,000 acres will have been reforested. Most other rehabilitation projects will be completed this fiscal year. Anticipated project work includes 30,000 acres of drill seeding, 6,500 acres of aerial seeding, 9,300 acres of shrub restoration, 1,700 acres of greenstripping, 95 miles of protective fence construction, and 1,000 erosion control structures.

Since 1985, 140 miles of applied research greenstrips for testing and evaluation have been installed in southern Idaho. Almost half of this total area was seeded in the fall of 1986 but has germinated poorly due to the extreme drought during the 1987 growing season. However, two greenstrips that were seeded in 1986 have established and will be monitored and evaluated for effectiveness in reducing fire hazards during this and future summers. The remainder of the Idaho experimental greenstrips were seeded last fall, and thus will not be fully established for 2 more years.

58. Question: What is the current condition of BLM developed recreation sites in Idaho? In other states? What is the current condition of BLM bridges, roads, trails, and facilities? Is the condition of BLM facilities, such as those listed above, improving or deteriorating?

Answer: The most recent survey of recreation facilities in Idaho and other states indicate that Idaho's facilities were in 26 percent good condition, 44 percent fair condition, and 30 percent in poor condition.

Bureauwide, our recreation facilities were determined to be 27 percent in good condition, 53 percent in fair and 20 percent in poor condition.

Generally, most of the Bureau's bridges are in fair to good condition, whereas 62% of the roads and trails are estimated to be in fair or poor condition. Approximately 88 percent of the Bureau-owned buildings are in good and fair condition.

The majority of the maintenance work being performed at this time is either corrective or rehabilitative in nature, as opposed to regular recurring or preventive maintenance. Consequently, the overall condition of our facilities is generally static.

## Other

| | |
|---|---|
| 59. Question: | The current population of wild horses is estimated at 28,500, compared to the estimated management level target of 19,500. The Budget proposes to reduce the excess by about 5,600 animals. How much would it cost to remove the other 3,400 in 1989? To maintain them? How much would it save if the removal rate were accelerated in 1989, rather than waiting until 1991? |
| Answer: | The Bureau does not feel it is practical or desirable to remove 3400 more animals in Nevada during 1989. It would be difficult to capture and prepare this larger number of animals for disposal with current manpower and facilities. Cost and savings for an expanded accelerated removal program in Nevada varies significantly depending on the disposition alternatives available; however, even if additional funding were provided, it is doubtful that there would be savings from an accelerated removal program due to short term costs to gear up for the one-time effort. |
| 60. Question: | What is the potential for additional riparian work nationwide. Include a discussion of the impact on fishery resources? Please provide, by state, a listing of stream miles which could benefit from additional riparian work (for fisheries and other benefits), along with the estimated cost by state. |
| Answer: | The Bureau has placed greater emphasis on riparian area management in all programs since 1986. Funds are also being expended for riparian improvement projects in the range, soil/water/air, and forestry programs through grazing allotment management plans, timber management plans, and watershed plans. For example, State Offices recently listed 82 AMPs which contained specific riparian management objectives, and several watershed management plans have been prepared which emphasize riparian areas.<br>BLM State Offices have prepared individual statewide strategies that address long-term implementation of riparian area improvements. These State strategies will be updated in FY 1989 to more clearly identify riparian area management needs and potential accomplishments by program.<br>The most recent estimates available of potential riparian work by State are from the Bureau's fisheries and wildlife program 1986 Habitat Management Plan data statistics. These data are as follows: |

Riparian HMPs Only - HMP Statistics, 1986

| State | No. HMPs | Miles of Stream | Total Funding to Complete (in dollars) |
|---|---|---|---|
| AK | 5 | 10,901* | 300,000 |
| AZ | 11 | 271 | 1,690,000 |
| CA | 21 | 89 | 807,000 |
| CO | 5 | 375 | 2,363,000 |
| ID | 3 | 100 | 500,000 |
| MT | 4 | 0 | 168,000 |

| **State** | **No. HMPs** | **Miles of Stream** | **Total Funding to Complete (in dollars)** |
|---|---|---|---|
| NV | 11 | 92 | 1,634,000 |
| NM | 6 | 44 | 1,243,000 |
| OR | 5 | 29 | 146,000 |
| UT | 16 | 216 | 3,533,000 |
| WY | 20 | 603 | 2,214,000 |
| Total | 107 | 12,720 | $ 14,598,000 |

* This represents total stream miles within the HMP areas; it does not, however, represent that the total stream miles are in need of rehabilitation.

61. Question: Please provide a complete status report on the Aerojet general land exchange, including a description of lands to be acquired and their location, as well as an estimate of timing.

Answer: The Nevada-Florida Land Exchange Authorization Act (P.L. 100-275) was signed by the President on March 30, 1988. A contract appraisal has been awarded to determine the value of the Nevada public land in this land exchange proposal.

The appraisal is scheduled to be completed and have completion of agency review during June, 1988. Exchange and lease agreements will be prepared shortly after an approved appraisal is on hand, and subsequent required Congressional and public review is completed. A final description of the Florida land to be acquired will be completed when the appraisal of the Nevada public land is approved and the Congressional/public review period is over.

The initial Florida lands to be acquired by the United States are located about 20 miles west of Miami, Florida adjacent to the Everglades National Park. The 4,650 acres estimated for acquisition are low-lying, naturally irrigated, or subirrigated lands during most of the year. Existing public roads traverse the area at several locations and provide for public access. The amount of land to be acquired could vary somewhat if the approved appraisal indicates a significant difference in value between the Aerojet General offered land in Florida and the selected public land in Nevada under the current proposal.

We anticipate the exchange of land ownership titles with Aerojet General within 120 days of the effective date of the authorizing legislation, as expressed in the Act as being the sense of Congress, unless extenuating events arise. The Fish and Wildlife Service will have management responsibility for the acquired land in Florida.

62. Question: The Bureau recently completed a special analysis of its wildlife and fish program entitled "Fish and wildlife 2000". What does that plan call for in terms of fish and wildlife habitat planning and development activity, both for Nevada and for other states?

Answer: The BLM's "Fish and Wildlife 2000" does not contain specific habitat planning and development proposals for

Nevada or any of the other States. Instead, it is a strategic plan that describes national goals and objectives to provide for more efficient management of fish and wildlife resources on the public lands. It outlines the direction of BLM's wildlife and fisheries program between now and the year 2000. It will ensure that the funds available to BLM are channeled into these management actions and projects considered most urgent. Also, it will enable managers to look at State or District programs in a larger context, avoid duplication of work, and better understand the Bureauwide priorities for fish and wildlife resource management.

The plan is being implemented in a variety of ways, including through the budget development and annual work planning processes, development and implementation of step-down state-level strategic plans in Nevada and other States, and the establishment of interdisciplinary teams to formulate strategies for achieving goals and objectives relating to anadromous fisheries, resident fisheries, waterfowl, raptor habitat management, and other key program issues/topics.

The State-level strategic plans currently under development will identify specific habitat planning and development activities for wildlife, fisheries, and threatened and endangered species. This information will be one basis for formulation of annual budget requests by BLM managers in Nevada and the other States. Habitat planning and development costs will be specifically identified in each State Office's budget proposal submission to the Washington Office.

63. Question: I understand that the bureau has a significant number of habitat management plans developed and ready to be implemented, but unfunded. Is that accurate? Could you provide a list, by state, of unfunded plans?

Answer: A total of 400 habitat management plans have been written as of the end of FY 1987. Approximately 64 plans have been fully implemented, while 336 are in various stages of implementation.

64. Question: Is there any need to provide for new planning, or should any Congressional adds be targeted to on-the-ground improvements?

Answer: As indicated in the previous question, the Bureau has numerous HMPs which are in various stages of implementation. The FY 1989 budget provides for preparation of 7 new HMPs to accommodate plan development in areas where critical resource conflicts arise.

## QUESTIONS SUBMITTED BY SENATOR JAMES A. McCLURE

### Federal Onshore Oil and Gas Leasing Reform Act of 1987

1. Question: As part of the 1987 Omnibus Budget Reconciliation Act (P.L. 100-203) Congress enacted the Federal Onshore Oil and Gas Leasing Reform Act of 1987. The onshore oil and gas program is one of the major mineral leasing programs

in the Department. At the end of 1987, there were about 17,000 producing leases on Federal lands generating over $800 million in annual revenue. The details of the legislation gave the Bureau until mid-June 1988 to promulgate final rulemaking. At the time your FY 89 Budget was printed, the final details of the new leasing system had not been decided (pg. 36).

What is the status of the rulemaking? Will you meet the mid-June deadline?

Answer: A decision concerning the final rules has not yet been made. A workgroup consisting of field and Headquarters staff is meeting the first two weeks of May to consider public comments on the proposed rule and to write the final rule. We expect to have the final rule in place no later than June 17, 1988.

2. Question: Two of the major changes in the law are the elimination of the requirement that the Bureau perform geologic analyses to determine Known Geological Structures (KGS) and the elimination of the requirement to evaluate competitive tracts for fair market value. The FY 89 budget indicates that you anticipate these two changes will save $1.0 million. The Act does, however, require the BLM to continue to process those applications pending prior to passage of the law.

What is the current backlog of applications? How much is in the FY-89 budget for that backlog? When do you anticipate eliminating the backlog?

Answer: About 4,000 applications requiring about 330 KGS determinations have yet to be processed. Because we expect to complete most grandfathered applications during 1988 and the remainder during the first quarter of FY 1989 we have not requested additional funding in 1989 to complete leasing under the old law. Rather, we will absorb what we believe will be minimal costs in FY 1989.

3. Question: In 1988 the Minerals Management Service, with the assistance and support of the Bureau, will begin to implement the Production Auditing and Accounting System (PAAS) for all producing onshore oil and gas leases. During 1989, PAAS implementation and maintenance costs to the Bureau will be approximately $350,000 (pg. 38). Is the $350,000 included in BLM's FY-89 budget or MMS's FY-89 budget?

Answer: The $350,000 is included in BLM's base budget for FY 1989.

4. Question: Can you explain how the budgeting procedures are going to work between MMS and BLM on the PAAS system?

Answer: BLM will expend funds for its portion of the PAAS conversion. We pay for part of PAAS dealing with lease management resulting from the production reports (3160).

5. Question: During 1986 and 1987 the Bureau took initial steps toward delegating inspection and enforcement activities to State governments as authorized. Regulations establishing the program were promulgated in 1987. At this time, the FY 89 budget assumes that no more than three States may have

delegated authority in 1988 and there will be no additional delegations during 1989.

Why has this program not been successful?

Answer: Regulations for delegations authorized under FOGRMA Section 205 have been in place only a short time, therefore we do not characterize the program as not successful. The States of Utah, Colorado, and North Dakota have indicated some interest in entering into an agreement, but have been reluctant to accept responsibility for the entire inspection program.

6. Question: Have you re-reviewed the regulations to determine what changes can be made?

Answer: Because the regulations have been in place for a short period of time we have not yet analyzed them to determine if they need to be changed. We will do this over time.

7. Question: How successful have you been in prevention of premature shut-in of oil and gas wells?

Answer: As of December 31, 1987 our policy to allow suspension of production on stripper and marginal wells has prevented the premature plugging of about 650 wells on about 350 leases. We believe this shows the program to be a success.

### Geothermal Leases

8. Question: The workload data in the FY89 justification indicates a continued decrease in the amount of work you anticipate in the geothermal program. For example, the number of noncompetitive geothermal leases has decreased from 200 applications in FY87 to an expected level of 20 in FY89 (pg.43).

As a result of this decreased workload you have requested a 30 percent reduction ($800,000) in the programs funding for FY89. Even at this reduced level of funding, however, it appears that the program is still overfunded for FY89.

Do you feel there is a chance for a comeback in the demand for new geothermal leases or is this a request to fund a minimum program?

Answer: We do not believe that geothermal leasing will take an upturn but the funding requested is necessary to properly manage the lease operations portion of the program. In areas such as the Geysers, Imperial Valley, Coso, and Desert Peak drilling activity and other development and production related activity has been on the increase because power plants are functioning and development is continuing. This budget is at a level consistent with program needs and provides adequate funding to properly monitor exploration and production activities and to respond timely to operator proposals and to applications directly associated with exploration/development.

9. Question: Is there a particular reason for this reduction in lease applications?

Answer: One reason for the slowdown in the geothermal program is the reduction in the price of oil makes power produced from geothermal to be a less attractive alternative to oil and/or coal generated power. Markets have proven to be soft as evidenced by the number of producible leases which have no market.

10. Question: To date, how many applications have been filed in FY-88?

Answer: During FY 1988 through March 31, 1988 the Bureau has received 68 applications covering 134,000 acres.

### Solid Energy Minerals

11. Question: You are anticipating continued soft coal market conditions. These conditions are reflected in a 26 percent decrease in the solid energy minerals program (4121 subactivity) for FY89 (pg. 51). The majority of the workload data supports this reduction. Some of the data, however, does indicate an expected increase in FY89. For example, you are anticipating an increase of 10 percent in the number of lease adjustments and a 5 percent increase in the number of lease operation plans processed. In addition, the number of inspections are also expected to increase by 5 percent. Is there a particular reason for these increases?

Answer: The increase of 10 percent in "lease adjustments" represents a workload in several related areas, including: lease assignments, lease modifications, lease readjustments, royalty reductions which impact the title holder, and approvals of logical mining units (LMUs), lease/LMU reserves (including overriding royalty), division of interest, terms and conditions, and expiration date. All of these actions are coded to the program element entitled "lease adjustments". The projected increase in the workload accomplishments for this program element reflects field office projections of increases in all of these actions which are related to the administration of existing leases, some of which are inactive and some of which have coal production occurring.

Similarly, increases in "number of operation plans" is attributable to several related actions for management of leases in production which are mandated by statute and required by regulation.

The increase in the number of inspections relates to increasing emphasis by the BLM on conducting inspection and enforcement actions which ensure compliance with statutory and regulatory requirements and to verify that the correct royalty is paid on coal extracted from Federal leases.

### Mining Law Administration

12. Question: You have requested $11,366,000 in Mining Law Administration for FY 89. This increase continues a trend in this program since FY 81 when the funding was $3.2 million. Part of this program supports your efforts to expand our mineral industry through "mineral potential reports", examination of additional mining claims and geologic and mineral resource assessments. Increasingly,

however, I see us funding additional Environmental Assessment Statement's and subsistence determinations similar to what is required in connection with the Sierra Club v. Penfold litigation (pg.58). Of the increase over the past few years for this program, how much has gone for additional environmental work as opposed to the mineral development effort?

Answer: Prior to 1981, the Mining Law Administration (MLA) program was one of processing mineral patent applications, classifying the public lands as to their mineral character, and pursuing mineral trespass actions.

In FY 1981, the Surface Management program mandated by Section 302(b) of FLPMA took effect, greatly increasing the workload in MLA. We now had to comply with NEPA (writing EIS's & EA's) on plans of operations, process notices, and monitor field operations.

In FY 1982, the Mining Claim Recordation program mandated by Section 314 of FLPMA was transferred from the Lands and Realty program to the MLA activity.

In FY 1987, our MLA program expenditures were approximately:

| | |
|---|---|
| Inventory, EIS, R&D: | $ 789,056 |
| Mineral Patents: | 1,772,470 |
| Non-patent Validity Work: | 720,145 |
| Mining Claim Recordation: | 2,751,038 |
| Surface Management & Compliance: | 3,265,291 |
| Total | $ 9,298,000 |

Of the above expenditures for FY 1987, approximately 36% may be considered environmental and surface management related work. The remainder can be considered related to mineral development activities.

## Rights-of-Way

13. Question: In the FY 1988 budget you anticipated eliminating the 5,700 reappraisal cases backlogged in the Rights-of-way program. The FY 1989 budget, however, indicates that the backlog will not be eliminated in FY 1988 and 2,000 cases will be carried over into FY 1989 (pg. 72). Why has this process been slowed?

Answer: Publication of final rental regulations was delayed until July 8, 1987. There was not enough time to complete all reappraisals as intended. When the FY 1988 budget was presented, final regulations were planned for February, 1987.

## Lower 48 Lands Program

14. Question: You have requested an increase of $600,000 in FY 89 for the lower 48 Lands program. This increase will allow the BLM to double the number of unauthorized use cases from 665 to 1,265. A preliminary inventory in 1988 found an estimated 1,700 cases of unauthorized residential occupancy and 870 cases of unauthorized mining claim occupancy.

How confident are you of the accuracy of this inventory?

Answer: We have strong confidence in the field inventory of unauthorized uses and are improving our methods of data collection continually. In March 1987, we directed field offices to inventory and record realty trespass cases through the Automated Land and Minerals Records System (ALMRS).

Trespasses documented and recorded as of April, 1988 are as follows:

| | | |
|---|---|---|
| Agricultural Trespass | 1,994 cases on | 35,216 acres |
| Occupancy Trespass | 1,234 cases on | 5,818 acres |
| Rights-of-way Trespass | 286 cases on | 964 acres |
| Miscellaneous (Trash, etc) | 46 cases on | 127 acres |

15. Question: What is the revenue lost if the inventory is accurate?

Answer: On the basis of trespass numbers currently recorded, and assuming the lands could be rented, we estimate a potential loss rental revenue of about $3,500,000. This figure does not reflect offsetting expenses for case processing or litigation which could be substantial depending on the complexity of the case involved.

This estimate is based on the following:

A. Agricultural Trespass potential rental of $50.00 per acre per year
B. Occupancy Trespass $300 per acre per year ($25/mo.)
C. Rights-of-way Trespass $6 per acre per year
D. Miscellaneous Trespass $50.00 per acre per year

16. Question: If above $600,000, why didn't you request additional funds?

Answer: The request is based on overall Bureau and Departmental priorities. The requested funding will enable us to resolve significant numbers of trespass cases annually with existing staffing. With continued funding, and existing staffing, over the next 3 years we should gain a considerable measure of control over public land trespass.

17. Question: What prompted you to take an inventory?

Answer: It was determined that some agricultural trespassers were receiving subsidy payments from the U.S. Agricultural Stabilization and Conservation Service (ASCS) on the trespass lands. This was reported to the Department's Office of Inspector General (IG). Subsequent investigation by the IG resulted in several recommendations that the Bureau is implementing to address unauthorized use upon the public lands. The recommendations were:

1. Identify and record trespass (Inventory)
2. Incorporate trespass resolution into the Bureau's planning and budget system
3. Promulgate regulations with substantial charges for trespass uses
4. Coordinate trespass resolution with the ASCS.

## Alaska Lands Program

18. Question: You have requested a decrease of $1.5 million (-11 percent) in FY 1989 for the Alaska Lands program. In spite of this proposed decrease, however, you indicate that conveyances to the State of Alaska and the Alaska Native corporations will remain on target with the patent plan process.

Does this mean there will not be a delay in FY-89 but there would be in FY-90 and FY-91?

Answer: Your assumption that there would be no delay in FY 1989 and probable delays thereafter is correct. There is no planned delay for FY 1989 in conveying lands to the State of Alaska and the Native Corporations. The Patent Plan Process is a 3-5 year program. The lands to be conveyed in FY 1989 were adjudicated and surveyed in prior years and will be ready for final patenting in FY 1989. Principal programs of land transfer, patent processing, and individual case work will substantially continue and meet goals established for FY 1989. Adjudicative work targeted at resolution of title conflicts in order to facilitate survey and patent in future years will progress at a slower pace and reduced level.

## National Wildlife Federation Lawsuit

19. Question: Because the final resolution of a lawsuit by the National Wildlife Federation is uncertain, the BLM is proposing a decrease of $2.4 million (-66 percent) in the Withdrawal Processing and Review Program (pg. 86). This proposed decrease will be accomplished by deferring the number of withdrawal review cases by 450, or 90 percent, the waterpower cases by 85, or 85 percent and the classification review cases by 45, or 90 percent.

In February of 1986 Judge Pratt of the U.S. District Court for the District of Columbia granted a preliminary injunction in this case. In December of last year, the U.S. Court of Appeals affirmed Judge Pratt's issuance of the preliminary injunction order. What are the terms of the U.S Court of Appeals decision? Did the court prevent reviewing existing withdrawals? If not, why are you requesting such a large decrease?

Answer: The U.S. District Court and the U.S. Court of Appeals have not issued any orders that prevent the Federal defendants from reviewing existing land classifications and land withdrawals. We are not taking any final action on the recommendations.

The requested decrease may be achieved by deferring workloads in FLPMA Section 204(a) withdrawal revocations to permit subsequent land transactions, FLPMA Section 204(l) withdrawal reviews, classification reviews, and waterpower case reviews until the National Wildlife Federation (NWF) litigation is resolved.

20. Question: After the U.S. court of Appeals affirmed Judge Pratt's decision on issuance of the preliminary injunction, did you change your instructions to the field which I believe

originally directed State Offices to continue with withdrawal and classification reviews and make the necessary recommendations for future actions?

Answer: No, we did not. After the U.S. Court of Appeals affirmed Judge Pratt's issuance of the Preliminary Injunction order, the Bureau of Land Management did not issue any instructions to the field that modified or changed the direction of continuing to pursue withdrawal and classification reviews, but of not taking final action on recommendations.

On March 10, 1986, the Federal defendants filed Solicitor's guidance with the District Court which stated that the Secretary could not modify or terminate any withdrawals pursuant to Section 204(1) of the Federal Land Management and Policy Act (FLPMA); however, all bureaus could continue to review existing withdrawals and prepare recommendations to the BLM. Then each State Office was instructed to conduct on-the-ground inspections, prepare field reports, obtain rejustification statements, and prepare recommendations for future actions. The cases are retained at the BLM State Offices pending the final outcome of the lawsuit.

21. Question: What is the status of the Department of Justice's efforts to petition for a rehearing?

Answer: On January 25, 1988, the Department of Justice filed a petition for rehearing with suggestion for rehearing en banc (involving a review by all Circuit Court Judges) with the United States Court of Appeals for the District of Columbia Circuit. This petition for rehearing was based on the belief that the panel majority violated fundamental principles governing the issuance of a preliminary injunction. Special emphasis was placed on the fact that the PI was affirmed not withstanding the absence of any proof of irreparable injury occurring on even one parcel of the 180 million acres of land involved in the NWF litigation. On April 29, 1988 the petition for a rehearing by the entire appellate court (en banc) was denied. The order denying the petition was accompanied by a one-page memorandum which the appellate court noted that the District Court should expedite its proceedings and rule on the cross motions for summary judgement.

22. Question: At this reduced level of funding, will you meet the 1991 deadline for completing withdrawal reviews established by FLPMA?

Answer: Section 204(1) of FLPMA specifies a 1991 deadline for completing withdrawal reviews; however, given the effects of the NWF v. Burford, et al., lawsuit since 1985 and the expected protracted continuation of the litigation, it appears that the 1991 deadline will probably not be achievable.

## Forest Management

23. Question: You have requested an increase of $400,000 (+6percent) for the public domain timber program. This increase will be used to increase by 10 MMBF the volume of timber sales offered (60 MMBF in FY 88 and 70 MMBF in FY 89) and to

place additional emphasis on reducing the reforestation backlog. Yet the annual allowable harvest is 88 MMBF. (pg. 93).

What was your request for volume of timber sales offered to the Department? OMB?

Answer: The BLM's request to the Department and OMB for FY 89 was 70 MMBF. Due to pre-sale layout, cruise and appraisal work, and contract preparation required before sale, offering the 87.8 MMBF level of allowable cut cannot be achieved without more lead time.

24. Question: If you follow BLM's existing criteria what would be the maximum amount of timber you could offer in FY-89?

Answer: The maximum amount of timber that could be offered in the public domain forestry program in FY 89 is limited by the Allowable Harvest which is 87.8 MMBF. The planned 70 MMBF is however the maximum that could be offered within our existing capability and necessary lead times as mentioned above.

25. Question: According to your justification, the reforestation backlog has been reduced from 20,700 acres to 16,500 acres (pg. 92). Funds requested in FY89 will provide for the reforestation of an additional 900 acres (2,100 in FY88 vs. 3,000 in FY89).

What do you feel is an acceptable level of reforestation?

Answer: In order to meet the 1992 goal of eliminating the reforestation backlog, an average of about 4,100 acres per year would need to be reforested.

26. Question: The Forest Service indicates in their justification for FY89 that a "shortage of trees and seeds preclude increasing the amount of reforestation" above their request.

Are you having similar difficulty?

Answer: No, availability of trees and seeds have not been the limiting factors in our reforestation programs due to the relatively small need for seedlings when compared to that of the Forest Service.

27. Question: The justification indicates that the policy and procedures of the public domain forestry program will be reevaluated so they will serve the public better and improve cost effectiveness (pg. 93).

How do you expect the program to change? Do you anticipate issuing new regulations?

Answer: A workshop is scheduled for June, 1988 for the purpose of re-evaluating the PD forestry program. Fourteen major policy issues will be reviewed with managers and professional staff from the affected states. It would be premature at this time to speculate on how the program may change; however, we do expect that there will be policy modifications proposed and that new regulations in some areas may be needed.

## Wild Horses and Burros

28. Question: How confident are you that legislation allowing the sale of animals will pass between now and October 1?

Answer: After much discussion with members of Congress and the public, there appears to be little interest in passing legislation to authorize the sale of wild horses or burros in the near future.

29. Question: If it doesn't pass, and funding is not increased, how many animals will be left on public lands at the end of the year?

Answer: Under those circumstances, we expect the total population of wild horses and burros on BLM administered lands will increase from our target level of approximately 39,500 animals at the end of FY 1988 to a total population of 45,400 at the end of FY 1989.

30. Question: Please provide for the record the workload measures listed on page 99 if:

1. funding is not increased and legislation is not passed allowing the sale of animals.
2. funding is increased to the base level and legislation is not passed allowing the sale of animals.
3. funding is increased to the base level and legislation is passed allowing the sale of animals.

Answer:

| Workload Measure | Option No. (1) | Option No. (2) | Option No. (3) |
|---|---|---|---|
| Funding Level: | $7,513,000 | $14,663,000 | $14,663,000 |
| HMAP's Implemented | 5 | 20 | 20 |
| Herd areas Monitored | 40 | 100 | 100 |
| Animals removed | 0 | 8,400 | 12,500 |
| Animal disposition | | | |
| Adoptions | 5,421 | 8,000 | 5,000 |
| Deaths | 0 | 840 | 1,250 |
| Sales | 0 | 0 | 12,500 |
| Compliance checks | 200 | 400 | 500 |
| Animals Maintained in Contract Centers | 2,700 | 2,400 | 1,900 |
| Animals Maintained (EOY) | 0 | 1,200 | 300 |
| Population on Public Lands (EOY) | 45,400 | 37,000 | 33,900 |

## Sports Illustrated

31. Question: Have you ever analyzed how many species would be put on the endangered species list or even eliminated if this program did not exist?

Answer: We have not studied this possibility, however, we analyze various levels of use by livestock, wild horses and burros levels, and wildlife in our land use planning process. This data is then used to establish population levels for each of these grazing uses so that the total forage consumption does not exceed the land's capability and thus helps prevent plants and animals from being endangered or eliminated.

32. Question: If the animals were allowed to roam free and reproduce, what would be the quality of the forage on the range?

Answer: Failure to remove animals on a periodic basis from each herd would result in significant population increases. Our latest data indicates that BLM wild horse and burro populations have been increasing approximately 15% annually during the last 2 years. As populations increase more forage would be consumed. Assuming no increase in rangeland production, the increased forage consumption by wild horses and burros would require a reduction in the amount of forage used by livestock and/or wildlife to prevent long term damage to soil, water, and vegetation resources.

33. Question: Have you had an opportunity to review this program in light of the Sports Illustrated article?

Answer: The fee waiver program, which is the main topic of this article, has been in effect since 1984 and was conceived to solve the problem of disposing of older or otherwise less adoptable animals. Overall, we have had few problems with fee waiver adopters and their agents providing proper care for the animals. However, during the last 2 years we have encountered the cases that were featured in the Sports Illustrated article. As a result, our field offices have been increasing the frequency of their inspections to assure that the animals adopted under this program are being properly cared for. In addition, we have suspended this program and will no longer approve waivers of the adoption fee except for non-profit groups.

## Private Sanctuary

34. Question: How has the Bureau proceeded with this authority?

Answer: We have been in contact with a number of individuals who have expressed an interest in the sanctuary program. As a result of those discussions we expect to have a sanctuary capable of handling approximately 3,000 animals available in early FY 1989.

35. Question: You have requested an additional $500,000 in FY 1989 for the Grazing Management program. This increase is proposed to allow the Bureau to meet its priority allotment monitoring requirements. There has been a 40 percent increase since FY 1987 in the amount of monitoring necessary (pg. 103).
Does the funding level requested in FY-89, meet the demand?

Answer: Yes, for FY 1989. Completion of the final five EIS's will trigger the need for establishing monitoring on allotments within the five areas.

## Soil, Water and Air

36. Question: Please provide for the record the location of the 55 new projects and 27 new activity plans?

Answer: In the budget development process BLM determined that some lower priority watershed work should be deferred to allow other higher priority work to be accomplished. The numbers that appear in the Budget Justification (55 new watershed projects and 27 new activity plans) were derived using average costs. The specific location of these projects will be determined by each State Director based on priorities and funding level once an actual FY 1989 Appropriation is enacted. It is probable that these projects would be spread fairly evenly among all of the BLM States.

### Hazardous Materials

37. Question: You have requested $ 12.4 million in FY 89 for the hazardous materials program, an increase of $6.5 million over the FY 88 enacted level (pg. 110). The majority of this increase will be directed toward clean-up of the Oroville, Washington, and Lee Acres, New Mexico, Sites as well as for studies and assessments of other sites.

Now that the inventory is nearly complete, do you know the total costs for clean-up of all sites?

Answer: The Bureau does not know the total cost for clean-up of all sites on the public lands. This is because (a) not all the potential hazardous substance release sites on the more than 300 million acres of mostly remote public lands have yet been found (virtually all of these sites are created by private parties or local governments by use of the sites for their own purposes). Also, even if a site is identified it must be studied and evaluated before an estimate of cleanup costs can be made. (b) New sites are being added by midnight dumping and other illegal means so that sites inventoried today could be contaminated next week.

38. Question: What are the next cleanup priorities beyond Oroville and Lee Acres?

Answer: The Bureau has identified the Flora Vista Landfill (New Mexico), the Merlin Landfill (Oregon), and Gwinn Cave/Shoshone (Idaho) as its next priority areas for evaluation to determine if cleanup is necessary.

In addition, the Bureau is working closely with the EPA on the Atlas Asbestos Mine Site (a site on the National Priorities List) in California.

### Challenge Grants

39. Question: In FY 88, $900,000 was provided of the challenge grant program in the wildlife area (pg. 116). These funds were to be matched from other sources.

How successful have these funds been to date? What type of projects have been funded? Has there been any difficulty in acquiring the necessary matching funds?

Answer: (A) To date (1985-1988), the challenge grant funding has totalled $1.94 million. The total matching funds provided by the State and private sectors during this same period were $3.47 million. We feel that the cooperative matching fund approach to financing habitat improvements results in a "stretching" of Federal funds to achieve more on-the-ground results than if the work was financed 100 percent by Federal funds. Also, the matching fund approach provides a means to build positive, constructive partnerships with outside organizations and individuals, as well as a way to increase public understanding of the Bureau's efforts on behalf of fish and wildlife resources.

Challenge Grant funds are focused on high priority riparian, fisheries, wetlands, and desert bighorn sheep projects. Specific kinds of projects that have been complete include: water developments, riparian fencing and planting, fishery enhancement, wetlands development and restoration, fish and wildlife reintroductions, habitat inventory and monitoring for T/E animal and plant species, and HMP preparation.

There has been no problem in acquiring matching funds. The number of actual matching fund contributors have been increasing each year. For example, we anticipate $1.55 million in matching State and private sector funds for the FY 1988 Challenge Grant appropriation of $900,000. BLM field offices identified a $3.7 million Challenge Grant need that potentially would have been matched by $4.5 million in State and private contributions.

40. Question: Why haven't you requested any additional funds for this program in FY 89?

Answer: At the 1989 Estimate level, the specially identified funding for the Challenge Grant Program ($900,000) would be eliminated. Although the program has been successful in stretching Federal dollars, it remains a lower priority when compared with other Bureau needs. However, under existing funding authorities the Bureau can continue to accept contributions of funds and labor from private sources, groups and State governments for improvement of the Public Lands and wildlife habitats. The Bureau can use regularly appropriated funds in conjunction with these contributed funds to achieve wildlife workload accomplishments.

## Data Management

41. Question: You have proposed an increase of $2.2 million in Data Management to contract for the redesign and reconfiguration of software currently used to run administrative and supporting systems. Most of the applications were initially designed to operate in the batch processing environment and were never upgraded to utilize the data base management system on BLM's existing Honeywell equipment.

Why wasn't the upgrade of this system done earlier? What is the long term cost of this upgrade?

Answer: BLM's software for administrative and supporting systems was not upgraded to take advantage of the data base management system of BLM's Honeywell equipment because of a lack of funding to do so. When new more advanced hardware and operating systems are adopted there is a necessity to run parallel systems until all problems associated with moving applications from the old system to the new system are corrected. The running of both the old and new systems concurrently is very expensive. Costs are significantly reduced by directly transporting the existing system code to the new system. However the benefits of the new system are not fully realized until the software is reconfigured and upgraded. After BLM acquired the Honeywell equipment there was no funding available to upgrade its software, thus in order to reduce operating costs the old system codes were directly transported to the new Honeywell equipment.

Because we are now in the process of developing a Bureauwide ADP Modernization Project to facilitate a number of automated system advances such as ALMRS, increasing use of geographic information system (GIS) technology and Departmentally-mandated administrative system improvements such as FIRMS, it makes sense to undertake the software upgrade and conversion to be able to utilize the full potential of the new hardware to be procured.

### Automated Land and Mineral Records System (ALMRS)

42. Question: In order to stay on schedule for the Automated Land and Mineral Records System (ALMRS) project, you have requested $23 million (+$9.5 million) in FY 89 (pg. 147). This is a ten year project designed to automate the land and mineral records data which are fundamental to managing the Public Lands.

In addition, you have requested that the $23 million remain available until expended.

How will no year funding assist in assuring effective management of this project? What are the outyear funding requirements for this project? What is the obligation schedule for the project?

Answer: Several of key contract deadlines in the ALMRS project fall within the last quarter of a fiscal year. Because federal procurements especially for ADP systems are very complicated and the possibilities of protests present significant risks to maintaining schedules, it is difficult to anticipate the amount of time necessary to respond to vendor questions and concerns, and therefore, schedule slippage is possible. However, we are working closely with the vendor community in an attempt to reduce the risk of a successful vendor protest.

No-year funds would ensure that funds would be available when required and would allow for smoother funding flow without being dramatically altered by contracting events. They would allow the Bureau not to be pressured into making premature decisions, which could result in sustainable protests, just to preserve funds from lapsing because the end of a fiscal year is approaching.

It should be noted that most large Federal systems procurements, such as significant hardware purchases in the Department of Defense, Department of Energy, etc, are funded with no-year appropriations because of the very factors mentioned.

The ALMRS outyear funding schedule is as follows:

ALMRS Project Funding Schedule
(Dollars in Millions)

| | |
|---|---|
| FY 1987 actual | $ 5.0 |
| FY 1988 appropriation | 13.5 |
| FY 1989 budget | 23.0 |
| FY 1990 (est.) | 23.0 |
| FY 1991 (est.) | 17.0 |
| FY 1992 (est.) | 35.0 |
| FY 1993 (est.) | 35.0 |
| Total | $ 151.5 |

There is no planned lag between the funding schedule and anticipated obligations. Differences between the two could occur if, for example, a vendor protest caused the delay of a contract award.

**Alaska Cadastral Surveys**

43. Question: You have requested a decrease of $3.8 million in FY 89 (-33 percent) in the Alaska cadastral survey program. This decrease is proposed as a result of emphasis on the execution of special surveys under the Patent Plan Process and a decrease in the completion of additional original surveys.

Because the inholding are unusually small, the patent Plan Process is complex and time consuming.

Is the patent plan process effective?

Answer: Yes. The patent plan process, which has been in place since 1986, provides that survey priorities are organized by geographic windows, normally defined along township lines. Selection of survey priorities is based on criteria established by the Alaska Land Use Council and are determined by user priorities. There have been no complaints with the Patent Plan Process after the long-term benefits, equities, and overall increased accomplishment levels were explained and understood by the various Native, State, and Federal interests involved. This process includes the various interests in the planning process and is very successful by all measures.

44. Question: Is the only reason you are proposing to decrease the funds because the process is complex and time consuming? Shouldn't funding actually be increased?

Answer: Surveys conducted according to the patent plan process a performed in "geographic windows" which means that all survey efforts in a given area are completed simultaneously. This means that subsequent survey efforts are not needed in the same area. In the short run the per/acre cost may be higher and there will be some delays, however, in the long run the efficiencies gained make future savings possible.

### Greenstripping

45. Question: Please provide for the record the States and number of acres of greenstripping to be performed in FY 88 and proposed for FY 1989. Also, please provide for the record the amount of funding necessary to restore the greenstripping effort to the FY 88 base level along with the funding of any existing backlog. Please provide the corresponding states for the questions above.

Answer: Presently the only BLM state office that has performed any Greenstripping is Idaho. Since 1984 Idaho has completed 140 miles or approximately 5,000 acres of Greenstripping. In FY 1988 the two principal districts involved with Greenstripping (Boise and Shoshone) plan to complete approximately 30 miles (1,100 acres) and 8 miles (300 acres) respectively. Additionally, they are proposing to widen some 230 miles of desert roads to enhance greenstripping.

The President's Budget for 1989 requests $250,000 for Greenstripping, which is identical to the FY 1988 amount. It is difficult to identify a Greenstripping backlog at this time. As the Bureau continues to experiment with the program and gains knowledge through the ongoing research, we will be better able to identify what the most effective methods are and how and where they are best applied.

### Noxious Weeds

46. Question: Please provide for the record the States and number of acres of noxious weed infestations that were eradicated in FY 88 and proposed for FY 89. Also, please provide for the record the amount of funding necessary to restore this effort to the FY 88 base level along with the necessary funding of any existing backlog. Please provide the corresponding states for the questions above.

Answer: (46A.)

| State | Acres Planned for FY 1988 Treatment | Acres for FY 1989 Treatment |
|---|---|---|
| Arizona | 300 | --- |
| California | 300 | 300 |
| Colorado | 500 | 600 |
| Idaho | 10,000 | 10,000 |
| Montana | 6,000 | 6,200 |
| Nevada | 400 | 400 |
| New Mexico | 300 | 300 |
| Oregon | 30,000 | 30,000 |
| Utah | 4,000 | 4,000 |
| Wyoming | 10,000 | 10,000 |
|  | 61,800 | 61,800 |

Treatment of weeds occur during the spring of the year normally, therefore, the 1988 treatments will be initiated soon.

Answer: (46B.)

The FY 1989 President's Budget includes the same level ($250,000) of funding for weed control as provided in FY 1988.

## QUESTIONS SUBMITTED BY SENATOR DENNIS DeCONCINI

| | |
|---|---|
| 1. Question: | In FY 88 the Congress appropriated an additional $500,000 for the management of the San Pedro Riparian Area, bringing the total for the area to about $830,000.<br>What does the Bureau expect to accomplish with this additional funding in FY 88? |
| Answer: | The FY 88 Interior Appropriations Act and Conference Committee report included additional funding of $500,000 for the San Pedro Conservation area. Additional base program funding (received in FY 1987) was internally allocated to result in a total FY 1988 allocation to BLM Arizona of about $830,000 for the San Pedro area.<br>Major management emphasis is directed to completion of the final management plan for the San Pedro Conservation Area in FY 88. Resource management emphasis is in the areas of cultural/historical, recreation, wildlife habitat and riparian programs. Additional accomplishments include necessary maintenance of several buildings and roads currently being used for administrative purposes, cadastral survey of approximately 40 miles of property boundary, and construction of 15 miles of boundary fence.<br>Cultural/historical program accomplishments include a paleontological inventory; preparation of project plans for stabilization of Fairbank Mercantile, Terrenate Presidio, and Wolf House; and issuance of contracts for the design of stabilization plans for the Fairbank Mercantile and Terrenate Presidio.<br>Recreation program accomplishments include some 2,000 hours of patrol work to enforce the temporary closure and protection of the property; issuance of a design criteria contract and development of preliminary site plans for administrative sites, campgrounds, trails, interpretive sites and day-use facilities; installation of computer to support resource data applications; low-level aerial photography of the property; trash clean-up of two sites; and preparations for the dedication ceremony of the San Pedro Riparian National Conservation Area.<br>Wildlife habitat program accomplishments include continued inventories of riparian vegetation, mammals, birds, fish and reptiles; initial development of wildlife habitat and riparian vegetation monitoring plans; and initial designs of habitat improvement projects.<br>Riparian program accomplishments include continued surface and groundwater monitoring; installation of two additional groundwater monitoring wells and equipment; inventory and filing of water sources on newly acquired lands; completion of two watershed maintenance projects; and funding of a USGS Geomorphology Study. |
| 2. Question: | How much money has been requested for the management of the San Pedro in FY 89? Is that amount sufficient to maintain the level of research and stabilization efforts currently underway? |

Answer: The FY 89 budget request includes $705,000 in support of the San Pedro Project. This represents a decrease of $125,000 from the FY 88 budget. This reduces our current level of research, maintenance of facilities and stabilization. However, this reduction is necessary because of other funding priorities in the State.

3. Question: What would be an optimal funding level for management of the San Pedro area if budget constraints were not a problem?

Answer: The Bureau will meet its resource management commitment to the workloads at San Pedro within the constraints of fiscal responsibility. The Bureau does not develop budget strategies based on optimum situations. Instead, priority workloads are identified and funded within the overall constraint of fiscal responsibility and priority workloads.

## Black Canyon Corridor

4. Question: Under the pending BLM/State of Arizona exchange of land involving the Santa Rita Experimental Range, the BLM will pick up approximately 50,000 acres of State-owned land which contains very important archeological resources.

Once this exchange has been completed, what types of activities will the BLM have to undertake to stabilize the ruins and administer management?

Answer: As proposed, Santa Rita legislation will add land both in Black Canyon and around Lake Pleasant. Both areas will require extensive use supervision. Based upon the Draft Phoenix RMP the following types of actions will be undertaken in these two areas:

1) Black Canyon
   - on-the-ground identification of cultural, riparian and wildlife values.
   - definition of existing recreation and livestock use patterns including resource conflicts.
   - preparation of ACEC Management Plan and/or Coordinated Resource Management Plan for resources in the area.
   - institute a combination of aerial and on-the-ground surveillance to protect cultural resources.
2) Lake Pleasant
   - development of Cooperative Management Plan with Maricopa County.
   - development of Coordinated Resource Management Plan.
   - institute on-ground patrol by BLM Ranger to enforce ORV-recreation plan actions.

5. Question: Are funds contained in your FY 89 budget proposal for this purpose? If no funds have been requested, how much would be required in FY 89 to properly manage this area?

Answer: Funds have not yet been programmed because the above actions were not planned for implementation until after completion of the Phoenix RMP, currently scheduled for January, 1989. Any necessary adjustments to properly manage these areas will be made within Arizona's FY 89 budget allocation.

6. Question: I understand one of the biggest problems facing the BLM for this unit will be in the area of law enforcement. How many

FTE's does the BLM intend to allocate to the Black Canyon Corridor?

Answer: Approximately 2 FTE of Ranger time will need to be allocated to the management of the Lake Pleasant and Black Canyon areas.

7. Question: Will these personnel be taken from other critical areas in Arizona?

Answer: Arizona BLM will readjust available law enforcement expertise to meet the highest priority needs. It is likely that both Black Canyon and Lake Pleasant will rank higher than some other areas in the state because of the high potential for impact to significant resources due to high levels of public use. Lower priority work will be deferred.

8. Question: What would be an optimal funding level for the Black Canyon Corridor unit once title has been transferred?

Answer: We estimate the 60,000 acres in the Black Canyon area above will probably initially require about $120,000. Our intention is to make the necessary adjustments within Arizona's budget allocation.

### Kofa National Wildlife Refuge

9. Question: Under the above-referenced land exchange, the BLM plans to take title to approximately 41,000 acres of land currently under the jurisdiction of the Fish and Wildlife Service in the Kofa National Wildlife Refuge.

One of the Key concerns about this exchange is that the BLM does not have sufficient personnel for management of bighorn sheep habitat and corresponding law enforcement.

Does the BLM have any funds budgeted in FY 89 for this purpose?

Answer: Much of the area adjacent to the Kofa Wildlife Refuge is already under BLM jurisdiction including the New Water Mountains and BLack Mesa. The area is also covered in the Lower Gila North Habitat Management Plan, a cooperative plan with the Arizona Game and Fish Department. Although the acquisition of land from the Kofa Wildlife Refuge was not considered in our FY 89 Budget, we believe adjustments can be made in the FY 89 budget to adequately fund management of these lands.

10. Question: If not, how many FTE's and dollars will be required to eliminate concerns about a lack of personnel oversight on the Kofa lands?

Answer: The Bureau does not have any concerns about its ability to manage the Kofa lands. Our record for managing such sensitive and critical habitat areas such as the San Pedro Riparian Area, Aravaipa Canyon and others in Arizona are exemplary. It may sometimes be necessary to adjust priorities for areas of emphasis to meet certain needs, but we have no doubt of our ability to meet these concerns on a timely basis.

### Wild Horse and Burro Management

11. Question: I see in the budget justification that the Administration has proposed once again sale authority for wild horses and

burros. In FY 89, the BLM plans to sell approximately 12,500 animals.

If sale authority is not provided, how much will the BLM need to corral and maintain animals in FY 89?

Answer: If sale authority is not provided for FY 1989, BLM believes there are two options which could be adopted. Option 1 would consist of the following: (1) continue to remove enough animals (8,400) to reach the projected Appropriate Management Levels (AML) by FY 1991, (2) adopt 8,000 animals through the regular adoption program, (3) provide prison training facilities for up to 2,000 wild horses, and (4) provide space in private land sanctuaries for approximately 2,000 animals. We estimate that this program would cost a total of $14.7 million in FY 1989.

Option 2 would consist of the following: (1) remove no animals and defer reaching AML until 1992, (2) adopt 5,400 animals using regular adoption and already approved fee waiver applicants, (3) provide no animals to prison or sanctuary programs, and (4) allow animals on public range lands to increase from 39,500 to 45,000. It is estimated this program would stay within the President's Budget estimate of $7.5 million.

12. Question: Language was included in the Conference Report on the FY 1988 Interior Appropriations bill encouraging the BLM to consider proposals for the establishment of private sanctuaries.

What is the status of discussions on this topic and does the BLM plan to move forward on any specific proposals? Please explain.

Answer: We are now reviewing a Memorandum of Understanding with the State of South Dakota providing for establishment of sanctuaries with sufficient capacity to care for approximately 3,000 wild horses. A few other groups or individuals have also expressed an interest in establishing sanctuaries on private land. We will continue to work with these groups if additional capacity is needed.

13. Question: It seems to me that the costs of care for the animals would be much lower if the BLM would endorse private sanctuaries. I have heard that the cost could actually be cut in half.

Is that true?

Answer: The daily cost for maintaining wild horses on a sanctuary similar to the South Dakota proposal is approximately one-half the cost of keeping an animal in the contract maintenance facility. However, we expect animals placed in a sanctuary will never be adopted. Thus, public funding will be needed to pay for maintaining a wild horse until the sanctuary is self-supporting which is estimated to take 3 years. As a result, every horse placed in a sanctuary will cost the Federal Government approximately $825 over 3 years.

In contrast, the time an adoptable animals stays in a contract maintenance facility waiting for adoption has generally been less than 1 year. In addition, when an animals has been adopted, BLM has no further monetary responsibility for the animal unless it must be re-possessed. Consequently, we doubt that the overall cost of the sanctuary proposals will be significantly lower than the cost of maintaining animals in contract maintenance facilities.

14. Question: How would the BLM feel about a demonstration project whereby a private sanctuary was established and funded on a short term basis to assess the impact and costs?

Answer: A demonstration project to assess the costs and benefits of sanctuaries is an excellent idea. We are now developing an agreement with cooperating groups in South Dakota to establish a sanctuary there. We believe the South Dakota proposal could be a useful pilot sanctuary project. Absent the ability to destroy, sell, or adopt through the fee-waiver program, unadoptable but healthy excess animals, the sanctuary system appears to be the most cost-effective way of caring for these animals.

15. Question: How much money would be necessary for such a proposal?

Answer: Depending upon the number of animals involved, we estimate that establishment and operation of a sanctuary with the BLM responsible for funding the program for up to 3 years after placement would cost between $2.4 and $4.8 million to maintain the unadoptable healthy excess animals to be captured over the next 3 years to reach the appropriate management level.

## Wildlife Habitat Management

16. Question: I see that the BLM has proposed a reduction of approximately $3.3 million in its wildlife and fish habitat program for FY 89.

With the growing need to protect wildlife and fish species in many newly acquired BLM areas, like the San Pedro, what impact will a reduction of this size have on protection of wildlife species?

Answer: At the reduced level, the BLM will still be able to conduct essential activities and otherwise meet its basic responsibilities for wildlife, fish and T/E species. Work on habitat improvement projects will be deferred. However, to help offset the reduction, the Bureau will place increased reliance on State wildlife agencies, and other BLM resource specialists such as range conservationists, hydrologists, volunteers,and others. High priority areas such as San Pedro will continue to receive basic management emphasis, while work in other areas will be deferred.

17. Question: What activities will take place under this program at the San Pedro in FY 89? Will there be any reduction in activities as a result of the budget cut? Please explain.

Answer: At the FY 1989 funding level the higher priority wildlife and fisheries needs at the San Pedro Conservation Area, including some of the inventory and monitoring will be accomplished. A reduction of lower priority activities from the FY 88 level will keep pace with the overall level of funding for the wildlife and fisheries program. Additional program funding in FY 89 in other programs provides for appropriate management of the cultural resources and recreation resources.

## Cultural Resources Management

18. Question: As you know, I have expressed continuing concern about the need to adequately fund the management of our cultural resources on BLM lands. Your budget justification for FY 89 indicates that only 4 percent of BLM lands have been extensively inventoried for cultural resource identification. When does the BLM expect to have all public lands under its jurisdiction inventoried?

Answer: The Bureau has no plans to immediately complete archeological inventories of all Public Lands. However, within the funding levels proposed, BLM can ensure that intensive inventories are conducted for all activities on Public Lands that could impact cultural resources. This not only affords protection to cultural resources, but also adds to the overall inventory information base.

Because BLM has administrative responsibility for about 270 million acres, completing archeological inventories of all Public Lands under BLM's jurisdiction would be cost-prohibitive and unrealistic in the near future. Completing intensive field inventories on a scheduled basis would require foregoing other higher priority needs such as archaeological site protection, management and law enforcement. For these reasons, BLM does not plan to do a complete inventory of all lands in the near future.

As an indication of the level of money and effort that could be required we refer to the recently completed report entitled Cultural Resources: Problems Protecting and Preserving Federal Archaeological Resources by the General Accounting Office (GAO). GAO estimated that a Class III inventory of all 98 million acres in the Four Corners states alone (under federal jurisdiction including BLM) could require more than 4,900 staff years; a 10 percent inventory could require 490 staff years.

19. Question: The budget justification goes on to further state that the $380,000 reduction in the management program for FY 89 will result in a deferral of second generation cultural resource overviews, a reduction of 10 new activity plans and a postponement of 16 protection plans. Will any activities for Arizona areas be impacted by these reductions? Please explain.

Answer: Most funding levels for BLM state offices, including Arizona, are likely to reflect a portion of the proposed $380,000 reduction in the overall cultural resource management program; however, any reductions in funding levels will be the result of deferral of lower priority work. Deferring preparation of second generation Class I inventories will result in RMP's being prepared using existing overview reports and available inventory data. Reductions in the numbers of plans will be accommodated by deferring work on lower priority sites and areas, i.e., in cases where delay will not threaten the resources. Delay in preparing or implementing a plan does not mean that protection will be foregone since interim protection of threatened resources will continue. In Arizona, the areas most critically in need of site protection and management, including the Paria Plateau, Cane Beds, Yellowstone Mesa, Perry Mesa, Apache and Navajo Counties, and San Pedro will continue to be monitored and protected.

# QUESTIONS SUBMITTED BY SENATOR HARRY REID

## Yucca Mountain

1. Question: Could you outline the process that is normally used to transfer BLM lands to other federal agencies? Did BLM follow these steps in granting the Department of Energy exclusive jurisdiction and control over the Yucca Mountain site?

Answer: The Bureau has policies and procedures for three methods in which jurisdiction of BLM lands may be transferred to other Federal agencies. The first method used is a withdrawal which transfers administrative jurisdiction of the lands requested to the receiving agency. The second method is the use of cooperative agreements which allows an agency to use BLM lands for specific purposes and time periods identified in the agreements. The third method is the use of a rights-of-way authorized under Section 507 of FLPMA. A right-of-way authorizes another agency to utilize specific lands for specific purposes as identified in the grant.

In the instance of Yucca Mountain, a right-of-way (ROW) was used to provide authority for the Department of Energy to undertake various studies, e.g. seismographic, soils analysis, core drillings and percolation tests, including the necessary access roads as set forth in their Site Characterization Plan.

The Bureau has complied with policies and procedures for issuance of a right-of-way grant to the Department of Energy for Yucca Mountain. The Department of Energy was directed in the FY 1988 Appropriations Act to limit their site characteristics study to the Yucca Mountain site. The Bureau, at the request of the Department of Energy, has authorized DOE to study the site as directed by Congress and according to their Site Characterization Plan. The State of Nevada has challenged the issuance of a right-of-way grant to DOE in court. The litigation is pending.

## Wild Horses In Nevada

2. Question: For the record, could you summarize what happened to the horses that resulted in their deaths?

Answer: The animals involved in the research-related deaths in the Clan Alpine area belonged to bands which had been brought through an opening in a livestock boundary fence from an adjacent herd area. Because of the unfavorable environmental factors during the gathering period in September, the animals were in relatively poor condition. Upon release after treatment with the fertility control compound, the animals apparently became disoriented and failed to find their way back through the fence.

The animals had been provided water prior to their release. Death appears to have resulted from the combined stresses of gathering, treatment, and dehydration. Mortality among horses gathered the same day from the other side of the fence was negligible.

## QUESTIONS SUBMITTED BY SENATOR TED STEVENS

### Alaska's Share of BLM Budget

1. & 2.

Question: According to the budget justification BLM provided us, there are 270 million acres of public land in the United States which fall under BLM's jurisdiction. Over 120 million acres or about 45% of these public lands are actively managed by BLM in Alaska. Yet your Washington budget office advised my staff that only 10% of BLM's FY 88 Land and Resource Management budget was allocated to Alaska. How do you justify that?

Even though Alaska has 45% of the public land in the entire country and we got only 10% of the FY 88 budget, you are proposing further reduction in Alaska's budget in FY 89. How do you explain that?

Answer: The Bureau allocates the funds appropriated by Congress based on the workloads and accomplishments within program areas. The resource management that is required to adequately administer the Public Lands in terms of minerals, lands, recreation, wildlife, and other resource needs, as well as the organizational support needed, is the basis on which the Bureau internally allocates these funds to BLM State Office organizations. The basis for allocating program funds is dependent on the levels of accomplishments planned and achieved in all State organizations. Allocating appropriations by the number of total acres administered by a State organization would not be appropriate since it does not recognize these other factors and the intensity of management required for different programs and areas including the intensity of public use received in each locality. Our calculation of the acreage for which we have actual full surface and mineral administrative responsibility is a total of 270 million acres (approximately). This is comprised of 175 million acres in the lower 48 States and about 95 million acres in Alaska. The Alaska acreages can fluctuate depending upon how one counts lands not yet patented but in essence otherwise conveyed to the State, Native corporations, villages, etc. The number of acreages of full management responsibility in the lower 48 States (175 million) has remained relatively constant for a number of years.

### Alaska Lands Program

3. Question: In FY 88 Congress appropriated $13,818,000 to the Alaska Lands Program to support conveyance of land to the State of Alaska under the Alaska Statehood Act and Native Corporations under the Alaska Native Claims Settlement Act. This year you are proposing a $1.5 million reduction.

According to the budget justification you provided us, that would mean an 80% reduction in interim conveyances to Native Corporations, a 75% reduction in interim conveyances to the State of Alaska, and more than a 50% decrease in acreage patented to the State. Your budget justification states that "despite the proposed decrease of $1.5 million and 19 FTE's from the 1988 base level, conveyance to both the State of Alaska and the Alaska Native Corporations will remain on target." How can you make such a statement in light of the figures I just quoted?

Answer: The percentage of reductions as outlined in the question do not correlate to the $1.5 million reduced funding level for the subactivity. The number of acres to be transferred to the State of Alaska and to the Native corporations either through the Interim conveyance (IC), Tentative Approval (TA), and patent processes is a function of the Patent Plan Process (PPP). Acres to be conveyed in FY 1989 have already been adjudicated and surveyed in previous years. The reduced IC and TA figures outlined in the PPP are a result of the emphasis placed by the State of Alaska and the Native corporations on having quality lands patented to them and of the particular geographic windows to be worked for FY 1989. In both of these cases the patented acres account for the smaller accomplishment levels to date. Emphasis is now on getting patents granted to the State of Alaska and to Native corporations, rather than conveying lands by interim conveyances and tentative approvals.

## Cadastral Survey

4. Question: You are proposing a $3.8 million reduction in Alaska's cadastral survey program this year. According to the budget justification you provided us, that means that survey miles will be reduced by nearly two-thirds. Conveyances to the State of Alaska, Native allotment applicants, and Native Corporations depend on maintaining the cadastral survey budget at an adequate level. In light of the fact that the State has been waiting for conveyance of its land since 1958, Native Corporations have been waiting since 1971, and some Native allotment applicants have been waiting since 1906 -- incidentally many of them have died waiting -- how do you justify this decrease?

Answer: The proposed reduction of $3.8 million in Alaska cadastral surveys is based in part in the President's goal of reducing the large Federal deficit and that efficiencies gained from the patent plan process allow some reduction in budgetary resources for the program. Surveys conducted according to the patent plan process a performed in "geographic windows" which means that all survey efforts in a given area are completed simultaneously. This means that subsequent survey efforts are not needed in the same area. In the short run the per/acre cost may be higher and there will be some delays, however, in the long run the efficiencies gained make future savings possible.

## Mining Law

5 and 6.
Question: In FY 87, Alaska received $1,321,000 for mining law programs. In FY 88 the Alaska District Office got only $1.4 million and that was after I added $400,000 to comply with the court order in Sierra Club v. Penfold. Alaska should have received its $400,000 add-on plus its $1.3 million base for a total of $1.7 million in FY 88, but it got only $1.4 million. That means that you must have reduced Alaska base by about $300,000 AFTER I added the $400,000. In my opinion, that action violated Congressional intent. Would you care to explain your action?

Your request for the FY 89 mining law program is $11,366,000, an increase of $1,200,000 over last year. Last year Alaska received only $1.4 million because you cut the base after my add-on. As a result of your action, by the end of next month, all five district offices in Alaska will be out of money for their mining law program. In order to comply with the court order and to conduct routine mining law work, the Alaska State Office needs a base of $1.8 million. What portion of the $11.4 million that you requested will be allocated to Alaska in FY 89?

Answer: The attached tables and appendices give Alaska's budget history in the Mining Law Administration program from Fiscal Year 1981 to the present and its workload relative to other BLM State Offices. Please note the base and add-on columns. Also note the fact that Alaska, by itself, absorbs between 11 and 13 percent of the Bureau's entire available Mining Law Administration budget, and it has less than eight percent of the Bureau's program workload.

The Alaska base funding level has been steadily increasing to accommodate priority workload needs but only as the Bureau's overall base has increased through the appropriations process.

A one-time increase was given to Alaska in 1986 expressly to catch up on compliance actions in the Surface Management program and to reduce backlogs of field work on mineral patent examinations. This was not considered an increase to meet Alaska's continuing program needs, but rather a one-time shot to allow the state to get its surface management workload on a pipeline basis. The money was spent on logistics (aircraft time and field expenses). In both 1987 and 1988, funding was added to support the EIS effort due to the District Court orders in Sierra Club v. Penfold. In 1988, this was accomplished through an increase in the Alaska base funding plus the additional $400,000 provided by Congress--specifically for the EISs.

Based on their historic workloads, we expect that a portion of the proposed FY 1989 funding increase if provided by Congress will be allocated to the mining law program in Alaska. The actual allocation for FY 1989 will be determined after receiving more detailed information from each BLM State Office on what its projected workloads will be in FY 1989. This will be done through our annual work plan process. Specific allocations will be made near the beginning of the fiscal year when information from all the States will be available on the projected work and after we will have a better idea of what the FY 1989 appropriation levels will be.

### Table I

### Alaska History - Mining Law Administration Budget
### FY 1981 -1988

Mining Law Administration Funds ($000s)

| FY | AK BASE 1/ AWP | ONE TIME ADD-ON 2/ TO AWP | TOTAL AWP | BUREAU WIDE 3/ DIRECT DOLLARS | PERCENT OF AK BASE TO TOTAL DIRECT $ |
|---|---|---|---|---|---|
| 81 | 435 | 0 | 435 | 3,670 | 11.85 |
| 82 | 675 | 69 | 744 | 5,764 | 11.71 |
| 83 | 600 | 60 | 660 | 5,410 | 11.09 |

| FY | AK BASE 1/ AWP | ONE TIME ADD-ON 2/ TO AWP | TOTAL AWP | BUREAU WIDE 3/ DIRECT DOLLARS | PERCENT OF AK BASE TO TOTAL DIRECT $ |
|---|---|---|---|---|---|
| 84 | 783 | 13 | 796 | 6,499 | 12.05 |
| 85 | 829 | 0 | 829 | 6,926 | 11.97 |
| 86 | 825 | 250 | 1,075 | 6,643 | 12.42 |
| 87 | 989 | 282 | 1,271 | 7,537 | 13.12 |
| 88 | 1,083 | 400 | 1,483 | 8,779 | 12.34 |

1/ Base AWP (Annual Work Plan) is the normal staffing and workload level assigned to a given BLM State Office organization. It is adjusted periodically to reflect changes in workload and Bureau priorities.

2/ One time add-ons are given for specific projects or the reduction of backlogs due to circumstances not foreseen at the time the budget packages were developed. They do not become part of the base for the succeeding year.

3/ Direct dollars are the appropriated amounts less leave surcharge, and FERS, cost reserves. Leave surcharge is a Bureauwide accounting system mechanism used to fund employee salaries and benefits while they are taking annual leave, sick leave, military leave, holidays, and administrative leave. When BLM employees, including those stationed in Alaska, are using leave, they are funded from the leave surcharge amounts.

## MINING CLAIM RECORDATION - CLAIMS RECORDED

| | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 |
|---|---|---|---|---|---|---|---|---|---|---|
| AK | 18512 | 26443 | 20362 | 8357 | 7724 | 1845 | 2977 | 1476 | 1862 | 3325 |
| AZ | 11629 | 39188 | 44423 | 28141 | 45822 | 21050 | 20599 | 17181 | 15420 | 14633 |
| CA | 6313 | 18814 | 30413 | 24298 | 17637 | 18368 | 23948 | 11488 | 13521 | 12314 |
| CO | 33106 | 58463 | 47708 | 17726 | 12439 | 6272 | 7290 | 4454 | 9036 | 7340 |
| ES | 40 | 132 | 316 | 204 | 801 | 303 | 543 | 1740 | 6227 | 641 |
| ID | 3634 | 15399 | 27419 | 12236 | 10218 | 11035 | 9181 | 6829 | 7197 | 12986 |
| MT | 6024 | 20202 | 25010 | 14217 | 10248 | 12276 | 10502 | 7141 | 6043 | 12829 |
| NM | 12651 | 29422 | 21020 | 13302 | 9218 | 7010 | 5470 | 3089 | 4133 | 4133 |
| NV | 19671 | 65945 | 66340 | 49975 | 34331 | 31692 | 35568 | 29347 | 30420 | 57434 |
| OR | 3446 | 12265 | 14430 | 9039 | 8114 | 12852 | 10876 | 5116 | 4401 | 6135 |
| UT | 23772 | 64746 | 102943 | 18503 | 12124 | 14087 | 10829 | 6356 | 12179 | 10471 |
| WY | 27024 | 76213 | 53628 | 12912 | 4761 | 2642 | 4995 | 1276 | 2419 | 4947 |
| TOTAL | 138758 | 427100 | 453696 | 211116 | 175435 | 137116 | 142778 | 95624 | 112858 | 147638 |

## MINING CLAIM RECORDATION - ANNUAL FILINGS RECEIVED

| | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 |
|---|---|---|---|---|---|---|---|---|---|---|
| AK | 876 | 20456 | 46594 | 46553 | 39554 | 36832 | 37413 | 26832 | 34356 | 30298 |
| AZ | 69 | 6606 | 41789 | 17763 | 65125 | 90772 | 76187 | 126040 | 118305 | 77652 |
| CA | 6 | 1117 | 4333 | 17526 | 47517 | 115268 | 105981 | 82333 | 67254 | 75565 |
| CO | 132 | 7842 | 15678 | 48546 | 73718 | 76816 | 80268 | 68567 | 52143 | 54844 |
| ES | ------ | ------ | ------ | ------ | ------ | ------ | 618 | 290 | 567 | 7437 |
| ID | 75 | 814 | 4134 | 11256 | 27708 | 53216 | 55621 | 54634 | 53453 | 53944 |
| MT | 72 | 138 | 1659 | 20036 | 42326 | 50590 | 55341 | 51989 | 52275 | 47591 |
| NM | 18 | 2474 | 5726 | 21836 | 32780 | 37087 | 40386 | 43170 | 29729 | 21049 |
| NV | 106 | 3018 | 9722 | 29809 | 120697 | 156472 | 173358 | 188885 | 148647 | 133547 |
| OR | 5 | 967 | 1864 | 6378 | 20598 | 34723 | 31699 | 31948 | 44723 | 37339 |
| UT | 105 | 10354 | 24819 | 60389 | 110419 | 129816 | 115638 | 48578 | 63345 | 50701 |
| WY | 0 | 50 | 2981 | 49426 | 87306 | 111202 | 89273 | 75007 | 60110 | 62310 |
| TOTAL | 1684 | 53876 | 159299 | 331518 | 667748 | 896814 | 866285 | 798906 | 724907 | 654079 |

## MINING LAW ADMINISTRATION - UNITS PROCESSED
## MINERAL PATENTS FILED

| | 82 | 83 | 84 | 85 | 86 | 87 |
|---|---|---|---|---|---|---|
| AK | 16 | 10 | 4 | 2 | 6 | 9 |
| AZ | 13 | 1 | 7 | 16 | 0 | 3 |
| CA | 6 | 1 | 5 | 6 | 6 | 9 |
| CO | 5 | 4 | 8 | 5 | 4 | 8 |
| ES | 0 | 0 | 0 | 0 | 0 | 1 |
| ID | 6 | 5 | 8 | 9 | 3 | 2 |
| MT | 4 | 21 | 7 | 20 | 15 | 12 |
| NM | 5 | 5 | 1 | 0 | 1 | 0 |
| NV | 9 | 5 | 16 | 4 | 3 | 10 |
| OR | 1 | 3 | 5 | 2 | 6 | 6 |
| UT | 6 | 1 | 0 | 2 | 0 | 6 |
| WY | 13 | 28 | 18 | 16 | 24 | 8 |
| TOTAL | 84 | 84 | 79 | 82 | 70 | 74 |

## MINING LAW ADMINISTRATION - UNITS PROCESSED

| | | 82 | 83 | 84 | 85 | 86 | 87 |
|---|---|---|---|---|---|---|---|
| AK | | 19 | 20 | 8 | 10 | 7 | 26 |
| AZ | | 36 | 20 | 8 | 23 | 15 | 4 |
| CA | | 24 | 15 | 10 | 11 | 10 | 17 |
| CO | MINERAL PATENTS | 5 | 7 | 13 | 21 | 46 | 55 |
| ID | | 16 | 10 | 17 | 18 | 8 | 5 |
| MT | NEW FILINGS AND | 5 | 99 | 55 | 39 | 40 | 19 |
| NM | | 13 | 13 | 2 | 4 | 3 | 2 |
| NV | CLOSED CASES | 19 | 13 | 30 | 13 | 10 | 17 |
| OR | | 4 | 6 | 6 | 5 | 7 | 8 |
| UT | | 6 | 5 | 3 | 8 | 2 | 6 |
| WY | | 38 | 74 | 46 | 32 | 44 | 47 |
| ES | | 1 | --- | --- | --- | --- | 1 |
| TOTAL | | 330 | 282 | 198 | 184 | 192 | 207 |

## SURFACE MANAGEMENT PLANS AND NOTICES COMBINED

| FISCAL YEAR | 81 | 82 | 83 | 84 | 85 | 86 | 87 |
|---|---|---|---|---|---|---|---|
| AK | 240 | 268 | 308 | 390 | 298 | 233 | 205 |
| AZ | 229 | 208 | 279 | 351 | 222 | 294 | 307 |
| CA | 318 | 301 | 290 | 284 | 307 | 351 | 381 |
| CO | 182 | 163 | 112 | 106 | 77 | 66 | 78 |
| ID | 69 | 102 | 81 | 54 | 95 | 233 | 41 |
| MT | 88 | 83 | 56 | 81 | 89 | 64 | 68 |
| NM | 26 | 107 | 16 | 54 | 58 | 72 | 81 |
| NV | 534 | 625 | 678 | 718 | 640 | 673 | 817 |
| OR | 81 | 131 | 300 | 116 | 556 | 225 | 151 |
| UT | 258 | 185 | 153 | 128 | 115 | 136 | 149 |
| WY | 143 | 94 | 113 | 64 | 48 | 55 | 43 |
| TOTAL | 2168 | 2267 | 2386 | 2348 | 2505 | 2392 | 2321 |

| COMPLIANCE | | | | | | | |
|---|---|---|---|---|---|---|---|
| FISCAL YEAR | 81 | 82 | 83 | 84 | 85 | 86 | 87 |
| AK | 7 | 9 | 15 | 82 | 117 | 210 | 231 |
| AZ | 23 | 104 | 113 | 135 | 332 | 289 | 400 |
| CA | 34 | 76 | 250 | 345 | 413 | 289 | 353 |
| CO | 105 | 250 | 146 | 136 | 215 | 192 | 319 |
| ID | 51 | 127 | 229 | 175 | 216 | 175 | 166 |
| MT | 48 | 24 | 189 | 84 | 152 | 95 | 120 |
| NM | 8 | 107 | 193 | 191 | 90 | 112 | 209 |
| NV | 106 | 378 | 471 | 462 | 360 | 781 | 1493 |
| OR | 149 | 162 | 229 | 266 | 281 | 245 | 293 |
| UT | 371 | 393 | 390 | 264 | 164 | 236 | 256 |
| WY | 1 | 45 | 68 | 20 | 67 | 20 | 35 |
| TOTAL | 903 | 1675 | 2293 | 2160 | 2407 | 2644 | 3875 |

## Oil and Gas Program

7. Question: In FY 88, nationwide the Bureau received $46,437,000 of its oil and gas program yet Alaska -- the state with the greatest oil and gas potential in the country -- got only $1,850,000. For FY 89 you have proposed a $900,000 reduction Bureau-wide. Will you cut Alaska's budget again, too?

Answer: Exact dollar allocations for states are not made until passage of the Appropriations Act, therefore we do not know exactly at this time how much funding will finally be available to Alaska for oil and gas activities FY 1989. However, when allocations are made we try to assure that program dollars go where they are most needed to accomplish the workload. In the case of the Alaska oil and gas program, it should be noted that in terms of Federal leasing activity Alaska ranks lowest of all the BLM State Office's, and that actual onshore exploration and onshore oil and gas production activities are also quite limited. Whatever funding is needed in Alaska generally, is for environmental and geologic studies in various parts of the state such as ANWR and NPR-A. In the past, the Fish and Wildlife Service has reimbursed BLM for work done on its behalf, thereby understating somewhat the amount that BLM spends on oil and gas related work in Alaska.

8. Question: Although last year you cut $893,000 out of Alaska's oil and gas program, I believe an increase of $150,000 to a level of $2,000,000 would be adequate to allow the program to continue at a minimum level. Would you be willing to allocate an additional $150,000 to Alaska to bring it up to a $2 million base?

Answer: Because we have not developed the FY 1989 funding allocations by State, it is premature for the Bureau to consider with any certainty the amount necessary for Alaska's -- or any other BLM State Office's -- oil and gas program workload in FY

1989. We will make every effort to allocate funds on the basis of need within limits imposed on us by the FY 1989 Interior Appropriations Act.

Recreation Resources Management

9. Question: Last year Congress appropriated $9,569,000 for recreation management. You allocated only $565,000 of that sum to the Alaska District Office, yet that Office has management responsibility for a third of the Bureau's wild and scenic rivers, 1 of the 4 conservation areas and the only National Recreation Area in the nation. You are requesting a $500,000 increase this year. What portion of that money do you plan to allocate to Alaska?

Answer: The requested increase for Fiscal Year 1989 is justified on the need for increased management in the California Desert National Conservation Area, and if appropriated, the additional funds would be allocated to the California State Office. We estimate that funding for Alaska's recreation program will remain fairly close to the Fiscal Year 1988 level. At this level, Alaska ranks fifth in recreation funding among the 12 BLM States Offices.

Many factors are involved in determining the allocation of the available funds each year. In addition to the number of Congressionally or administratively designated areas within the State, allocation of recreation resources management funds also takes into account the number of recreation visits, number of recreation sites, and the number of recreation use permits and special recreation permits issued. Other factors include the relative priority of the programs to meet BLM's mission, the national attention on these resources as reflected by public pressure, the need for protection and management based on the fragility or sensitivity of the resource, and the pressure or intensity of use and the need to manage or monitor public use and visitor activity.

Automated Land and Mineral Records System

10. Question: You have requested $23 million for the Automated Land and Mineral Records System this year, an increase of about $9.5 million over last year. Alaska receives no funding for its automation project from the ALMRS budget. Can you explain why? Would you be willing to consider including funding for Alaska within this activity in the future?

Answer: The Alaska Automated Lands Records System was initially developed in 1975, and is currently operational. Because Alaska already had an operational automated lands records system in place, it was not included in the ALMRS case tracking system which is now operational in the Lower 48 States, nor was it included in the ALMRS project feasibility study completed in 1986. The operational ALMRS case tracking system which is currently operational in the Lower 48 States is funded by benefiting subactivities, (i.e., lower 48 lands program, oil and gas program, etc.) rather than being funded by the ALMRS project which is a development project. Consequently, no ALMRS funding was provided for the Alaska system in FY 1988 or earlier.

We currently plan to bring the Alaska Land Records System into the target BLM ALMRS system configuration. Alaska system requirements are being included in the Bureauwide ALMRS General System Design contract to be awarded in FY 1988. After the General System Design for ALMRS is completed, refined cost estimates for the total ALMRS project will be made, which will include costs for implementing ALMRS in Alaska.

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## QUESTIONS SUBMITTED BY SENATOR MARK O. HATFIELD

### Forestry Program

1. Question: What is your level for proposed timber sales on O&C County Lands? How does this level compare to FY 88? How does this level compare to the sustained yield level?

Answer: The BLM will offer 1,183 million board feet of timber from O&C lands in FY 1989. This is the same level that was planned for in FY 1988. The sustained yield level of harvest is approximately 1,200 million board feet.

2. Question: What is the projected revenue to Oregon counties from Timber Harvests in FY 89? How does this compare to FY 88?

Answer: Projected revenue to O&C counties for FY 1989 is $72,340,000. This figure is the same as FY 1988, however, it may increase if the current accelerated harvest levels continue. This higher harvest level is due to a milder and drier winter as well as increased cutting by some operators in order to rebuild their log inventory.

3. Question: The Forest Service is finalizing its plan to set aside areas in the National Forests for the protection of the Spotted Owl. When will you be prepared to offer your Spotted Owl Protection Plan?

Answer: The BLM signed a formal agreement with the State of Oregon Department of Fish and Wildlife on December 22, 1987 to protect 110 spotted owl sites, each site being approximately 2,000 acres in size. This agreement is in effect until the 1990's Resource Management Plans are completed in late 1990 at which time those plans will establish the long-range objectives for spotted owl habitat. We have an intensive monitoring plan to track spotted owl activity on all 110 sites and are accomplishing the protection of these sites through scheduling timber harvest away from these areas until the 1990's plan is implemented. The 1990's plan will spell out what action is to be taken at that time.

## QUESTIONS SUBMITTED BY SENATOR QUENTIN N. BURDICK

1. Question: Is the moratorium on further fee-waiver adoptions permanent or could it be lifted six months or a year from now?

Answer: It is our intention that the fee-waiver program is suspended indefinitely. We expect that if funding is provided and sufficient sponsor interest exists for establishment of sanctuaries to maintain animals now being placed through the fee-waiver program, there will be no need for future fee-waiver adoptions.

2. Question: Would you have called for the moratorium if the Wild Horse program hadn't received national attention recently?

Answer: The Bureau has been looking at alternative means to dispose of unadoptable animals for the past several years. As a result of the problems associated with the fee-waiver program and the enhanced opportunities for a sanctuary program, the Bureau suspended the fee-waiver program.

3. Question: Could you please describe for me, in detail, the inspection procedures followed by the Bureau when checking on the herds, why in the North Dakota case these procedures failed, and what changes the Bureau plans to make in these procedures?

Answer: BLM guidance requires, as a minimum in large-scale adoptions, an onsite screening of facilities prior to approval and one inspection of the animals during the first 12 months, in addition to the inspection required prior to titling. The Cudworth animals were adopted in mid-July, 1987. Prior to approval of the adoption, the land upon which the horses were to be kept was inspected to assure that it was adequate for requested animals. Following the receipt of the animals in July, several inspections of the animals were made. An investigation into this situation was initiated by BLM to determine the cause of the animals deaths. While it appears there were some errors in judgement by BLM employees, until our review is completed, we will not know what procedures failed and what changes might be necessary to prevent a reoccurrence of this problem.

4. Question: As I understand, it took hours of prodding before the Bureau even allowed a representative of the local Humane Society to help verify the March 16th count of the horses. Yet, the Bureau's own regulations (43 CFR CH II (10-1-86)) say that the BLM officer may authorize a local humane official or similarly qualified individual to verify compliance. Can you explain this?

Answer: While local humane officials are authorized to accompany BLM personnel on inspections, they are barred from participation in BLM investigations and their entry on to private property may be restricted by the land owner. In this situation, the landowner refused to allow the humane society official access to the animals to help verify the count. However, in addition to BLM personnel, the count was observed by the local brand inspector.

5. **Question:** What would the Bureau's position be on contracting with a third party to accompany Bureau personnel on herd inspections and to verify the results?

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## QUESTION SUBMITTED BY SENATOR JAKE GARN

**Question:** Does BLM have authority to conduct an interstate exchange between Utah and Alaska? If not, and separate legislation were required, would the exchange be based on the value of the patented claims held by Utahs in Alaska nd public lands of equal value in Utah? Would the Secretary of Interior support such an exchange if funds for acquisition cannot be obtained from the Congress? Please prepare a list of public lands in Utah which may be available for such an exchange.

**Answer:** Yes, special legislation would be required if the Bureau were to undertake an interstate land exchange such as you describe.

The Federal Land Policy and Management Act (FLPMA) under which this exchange would most likely be authorized requires that land exchanges be of equal value.

Without additional information concerning the offered as well as the exchanged lands it is not possible to say if the Secretary would be supportive of such a proposal.

As a practical matter, it is not possible to identify a list of lands in Utah that may be available for disposal through exchanges. Lands are identified for possible exchange in the resource management planning process dependent upon their resource values and uses as well as their relationship to the "National Interest". Until there has been a specific proposal and/or proposed legislation it would be extremely difficult to provide you with any meaningful information on available exchange lands at this time.

### SUBCOMMITTEE RECESS

Senator REID. Again, it's always a pleasure to meet you and to talk to you. And, I appreciate you and your staff's work here today.

Mr. BURFORD. Thank you, Senator.

Senator REID. Thank you very much.

Mr. BURFORD. This should probably be the last time I appear in front of this committee on the budget.

Senator REID. I will see you in Colorado or somewhere.

Mr. BURFORD. Yes; I may be down behind one of the tables in Las Vegas. [Laughter.]

Senator REID. The subcommittee stands in recess.

[Whereupon, at 3:10 p.m., Thursday, April 28, the subcommittee was recessed, to reconvene subject to the call of the Chair.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

MONDAY, MAY 9, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 9:35 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Harry Reid presiding.

Present: Senators DeConcini and Reid.

## NONDEPARTMENTAL WITNESSES

### OPENING REMARKS

Senator REID. The committee will come to order. This is the time scheduled for the Department of the Interior and Related Agencies Appropriations Subcommittee to receive testimony from non-Federal witnesses on programs under the committee's jurisdiction.

I would first like to describe the procedures we will be following for the hearing today. The morning session will run until approximately 11:45 and will cover energy, minerals, and Indian topics. We will then recess for lunch. At 2 p.m., we will reconvene to hear testimony on natural resources, arts, and humanities issues.

A list of witnesses and their scheduled times of appearance is posted on the outside of the hearing room door. Because we have a full schedule, we will limit each witness to 5 minutes of testimony. When the yellow light on the dias in front of me goes on, please begin to wrap up your testimony; and when the red light comes on shortly thereafter, the witness is expected to conclude his or her testimony promptly. We must adhere to these time limits if we are going to stay on schedule and receive testimony from the 50 witnesses who are scheduled to appear today.

The written testimony submitted by each witness will be inserted into the record. Therefore, I would recommend that each witness summarize his written remarks rather than simply reading them into the record for a second time. A summary will permit you to tell us in your own words what your concerns are, and it may also permit time for possible committee questions.

Our time constraints will not permit us to take oral testimony from witnesses who are not on our published list. However, anyone wishing to submit a written statement for the record may do so. Such statements should be single-spaced and must be limited to three pages. Written statements submitted for the record must be received by the committee no later than May 23, 1988.

Now, as I call each witness, would you please come forward and hand three copies of your statement to the committee, if you have not already done so this morning, and then take your place at the witness table and begin your testimony by indicating your name and organizational affiliation, for the record.

We will begin with our first witness, Mr. David Webb.

## STATEMENT OF DAVID O. WEBB, SENIOR VICE PRESIDENT, POLICY AND REGULATORY AFFAIRS, GAS RESEARCH INSTITUTE

Mr. WEBB. I am David O. Webb. I am with the Gas Research Institute. I appreciate the opportunity to appear before you today to present GRI's fiscal year 1989 budget recommendations for gas-related research and the Department of Energy's fossil energy and conservation programs.

In developing these recommendations, GRI balanced two conflicting priorities: the need to reduce Federal expenditures, and the need to maintain essential research to reduce the Nation's vulnerability to imported oil.

In this light, GRI and the gas industry have agreed upon a minimum recommendation of $94.45 million. This funding essentially continues the same programs Congress appropriated $84 million for in fiscal year 1988. Central to this recommendation is that GRI is planning to commit $107 million to research in the same programs. Essentially, GRI is requesting DOE's longer-term gas-related research budget approximately equal GRI's near-term research budget.

GRI is an independent, not-for-profit research organization that manages and finances a cooperative R&D program for the benefit of its 255 members and their customers. DOE's budget is a major factor influencing the GRI program, since GRI cofunds many of its research projects with DOE. Therefore, even though GRI is not a Government contractor, congressional action on the proposed DOE fiscal year 1989 budget has a direct impact on GRI's program.

DOE energy policy statements versus budget reality: Previously, this administration did not count gas as a key element in meeting the Nation's future energy demand. However, in February DOE announced a major new study to perform a comprehensive assessment of U.S. natural gas reserve potential. In announcing the study, Secretary Herrington stated, "Our growing dependence on imported oil is an Achilles heel." He further stated, "This is an opportune time to reassess the role natural gas can play in displacing imported oil."

The DOE energy security study released last March concluded U.S. oil imports will probably increase substantially by 1995, ranging from 8 to 10 million barrels a day. The study also concluded that abundant domestic natural gas is the fuel that is most readily substitutable for oil. The study indicates targeted R&D in unconventional gas is one critical step to reducing U.S. dependence on imported oil.

However, when the DOE budget requests are examined, they are not consistent with any of the above policy. This is referred to in our exhibit 1. The budget request for fossil energy and conservation research is $248 million, a reduction of 48 percent from the $481 million appropriated by Congress just 3 months ago. The request for gas-related research in these DOE programs is only $29.2 million, less than 35 percent of the fiscal year 1988 funding level of $84 million. See exhibit 2.

While the administration talks about the important strategic role of gas in reducing the U.S. dependence on oil imports, the budget does not support the policy.

U.S. oil consumption and import outlook: A U.S. energy policy that essentially ignores fossil and conservation R&D and the role gas could play in meeting future energy demands hastens the day oil imports exceed 50 percent of the consumption. In 1987 oil imports were approximately 40 percent of U.S. consumption and were responsible for approximately 25 percent of the record U.S. trade deficit.

One obvious option to reduce oil imports is to substitute natural gas where possible in areas that are currently adding to the oil imports. However, this substitution requires advances in technology and an expanded gas research program. If gas is to fulfill its potential in the U.S. energy mix, a viable Federal research program must be funded. The DOE budget, as submitted, does not provide for this essential research.

Proposed joint DOE/gas industry research program: A continued joint effort between industry and the Federal Government is needed to ensure a stable, reliable energy mix for this Nation's security. To maintain this joint effort, GRI recommends $94 million for DOE's gas-related research budget in fossil energy and conservation. In many cases, these projects are being coordinated or cofunded with gas industry funding. See exhibit 3. Congress has recognized the need for a long-term DOE gas-related program and has appropriated approximately $90 million each year for these DOE programs. See exhibit 4.

DOE fiscal year 1989 gas-related research program recommendations: Western tight sands, we recommend for fiscal year 1987, $5.4 million; fiscal year 1988, $3.3 million; fiscal year 1989, $6 million. Eastern Devonian shales, for 1988 it would be $2.3 million; 1989 would be $6 million.

The secondary gas recovery would be: for 1988, $2.5 million; and for 1989, $3 million.

The geoscience recommendation: for 1988 it would be $6 million; for 1989 it would be $10 million.

For fuel cells it would be: $20.45 million for 1988; and for fiscal year 1989 it would be $22.7 million.

For conservation and heat pumps: for 1988 it would be $5.8 million; and for 1989 it would be $7 million.

Desiccants would be: $0.7 million for 1988; and $2 million for 1989.

In summary, we recommend the same level that Congress has approved in past years. The subcommittee should note that the gas industry's funding of near-term research in these program areas with a budget of $107 million. We believe the central themes of funding adequate long-term research in DOE with GRI for near-term research necessary to substitute abundant domestic gas oil for sound energy policy that Congress should implement.

### PREPARED STATEMENT

That completes my summary, Mr. Chairman. I would be glad to answer any questions you may have.

Senator REID. We appreciate very much your testimony. We appreciate GRI's willingness to cost share with the Federal Government. It is an example that others should follow. We appreciate your testimony.

Mr. WEBB. Thank you very much.

[The statement follows:]

# STATEMENT OF DAVID O. WEBB

## INTRODUCTION

Good morning, Mr. Chairman and members of the Subcommittee. I appreciate the opportunity to appear before you today to present Gas Research Institute's (GRI) FY 1989 budget recommendations for gas-related research in the Department of Energy's (DOE) Fossil Energy and Conservation programs. In developing these recommendations, GRI balanced two conflicting priorities--the need to reduce federal expenditures and the need to maintain essential research to reduce the nation's vulnerability to imported oil. In this light, GRI and the gas industry have agreed upon a minimum recommendation of $94.45 million. This funding essentially continues the same programs Congress appropriated $84 million for in FY 1988. Central to this recommendation is that GRI is planning to commit $107 million to research in the same programs. Essentially, GRI is requesting DOE's longer-term gas-related research budget approximately equal GRI's near-term research budget.

GRI is an independent, not-for-profit research organization that manages and finances a cooperative R&D program for the benefit of its 255 members and their customers. DOE's budget is a major factor influencing the GRI program since GRI cofunds many of its research projects with DOE. Therefore, even though GRI is not a government contractor, congressional action on the proposed DOE FY 1989 budget has a direct impact on GRI's program.

## DOE ENERGY POLICY STATEMENTS VS. BUDGET REALITY

Previously this Administration did not count gas as a key element in meeting the nation's future energy demand. However, in February DOE announced a major new study to perform a comprehensive assessment of U.S. natural gas reserve potential. In announcing the study, Secretary Herrington stated "our growing dependence on imported oil is an Achilles heel." He further stated "this is an opportune time to reassess the role natural gas can play in displacing imported oil."

The DOE Energy Security Study released last March concluded U.S. oil imports will probably increase substantially by 1995 ranging from 8 to 10 million barrels per day. The study also concluded that abundant domestic natural gas is the fuel that is most readily substitutable for oil. The study indicates targeted R&D in unconventional gas is one critical step to reducing U.S. dependence on imported oil. However, when the DOE budget requests are examined they are not consistent with any of the above policy (see Exhibit 1). The budget request for Fossil Energy and Conservation research is $248 million, a reduction of 48% from the $481 million appropriated by Congress just three months ago. The request for gas-related research in these DOE programs is only $29.2 million, less than 35% of the FY 1988 funding level of $84 million (see Exhibit 2). While the Administration talks about the important strategic role of gas in reducing the U.S. dependence on oil imports, the budget does not support the policy.

## U.S. OIL CONSUMPTION/IMPORT OUTLOOK

A U.S. energy policy that essentially ignores fossil and conservation R&D and the role gas could play in meeting future energy demands hastens the day oil imports exceed 50% of consumption. In 1987 oil imports were approximately 40% of U.S. consumption and were responsible for approximately 25% of the record U.S. trade deficit. One obvious option to reduce oil imports is to substitute natural gas where possible in areas that are currently adding to the oil imports. However, this substitution requires advances in technology and an expanded gas research program. If gas is to fulfill its potential in the U.S. energy mix, a viable federal research program must be funded. The DOE budget as submitted does not provide for this essential research.

## PROPOSED JOINT DOE/GAS INDUSTRY GAS RESEARCH PROGRAM

A continued joint effort between industry and the federal government is needed to ensure a stable, reliable energy mix for this nation's security. To maintain this joint effort, GRI recommends $94 million for DOE's gas-related research budget in Fossil Energy and Conservation. In many cases, these projects are being coordinated or cofunded with gas industry funding. (See Exhibit 3). Congress has recognized the need for a long-term DOE gas-related program and has appropriated approximately $90 million each year for these DOE programs. (See Exhibit 4).

## DOE FY 1989 GAS-RELATED RESEARCH PROGRAM RECOMMENDATIONS

Following is a recommendation for specific programs of particular interest to GRI.

Fossil Energy
Unconventional Natural Gas

| Western Tight Sands | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $5.4 million | $3.3 million | $6.0 million |

Significant amounts of potentially recoverable natural gas exist in low-permeability sandstone formations located throughout the U.S. However, technical limitations and economic constraints prevent the widespread commercial use of these resources. It is estimated that the development of advanced technologies could provide an additional 200 Tcf of cost-competitive gas.

The blanket-type formations are more amenable to production in the near term because the geologic environments in which they exist are less complex than the environments associated with lenticular formations. Therefore, GRI has concentrated its efforts in the blanket-type formations with a 1989 budget of $10.6 million. In addition, GRI anticipates industry will contribute another $7.5 million. GRI recommends DOE commit $6 million for longer-term research in the lenticular formations.

| Eastern Devonian Shales | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $0.455 million | $2.3 million | $6.0 million |

The large eastern Devonian gas shales resource base contains approximately 120 Tcf of gas-in-place in a drillable area of 22,000 square miles in the heart of the Appalachian Basin, and projections indicate that up to 50 Tcf of this gas may be technically recoverable. GRI's program in eastern Devonian shales includes reservoir evaluation, recovery enhancement methods, and development of a resource well information data base. GRI's 1989 budget for Devonian shales is $4.8 million with an additional $3.6 million in industrial funding expected. GRI recommends a total of $6 million for DOE research of Devonian shales focused on directional drilling applications.

| Secondary Gas Recovery | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | NA | $2.5 million | $3.0 million |

A significant quantity of natural gas that requires minimal exploration and is in close proximity to gathering systems and pipelines is known to exist in currently producing and abandoned fields. These potential reserve additions consist of gas-in-place that was not identifiable or economically producible with state-of-the-art primary production practices. Approximately 70 Tcf is thought to be economically recoverable with the development of advanced technologies. A new DOE/GRI cooperative R&D venture will be started in 1988 to conduct field experiments on identifying and producing bypassed gas in undiscovered reservoirs in known fields. GRI and industry will contribute over 50% of the costs. DOE funding of $3 million is required in 1989 to continue this joint program as scheduled. GRI's 1989 budget for secondary recovery is $4.2 million.

| Geoscience Recommendation | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | N/A | $6.0 million | $10.0 million |

GRI is pleased with the results of the FY 1988 budget appropriations to develop a geoscience research program. Recent DOE actions to establish a geoscience office in Fossil Energy and to initiate agreements with the Geoscience Institute for Oil and Gas Recovery Research are also encouraging. To initiate a geoscience program, GRI recommends DOE commit a total of $20 million in FY 1989 with $10 million for gas-specific geoscience research. Furthermore, this funding should be established as a separate line item in Fossil Energy.

| Fuel Cells | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $14.9 million | $20.45 million | $22.7 million |

Installed onsite, the fuel cell power plant can supply all or part of the electrical and heating requirements with very high overall energy efficiencies, good reliability, low noise, and virtually no pollutants. Two types of advanced fuel cells appear promising: solid oxide and molten carbonate. DOE should fund $10 million of research in each technology in FY 1989. The solid oxide fuel cell appears particularly promising because of its ability to utilize methane directly without extensive reformer equipment and its potential for development as a simpler and less expensive system. Fundamental research is needed on cell fabrication technology, electrical interconnect, thermal cycling, internal electrical losses, system component integration, direct methane use, and heat recovery.

In the area of phosphoric acid fuel cells, GRI recommends DOE maintain a generic program funding at $2.7 million for activities such as advanced electrolytes. GRI's 1989 budget for fuel cell activity totals $3.8 million with an additional $3 million from industrial partners.

Conservation

| Heat Pumps | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $5.0 million | $5.8 million | $7.0 million |

For a typical cold-climate residence, the gas heat pump can provide both heating and cooling in a single unit using less energy than a conventional gas furnace would use for heating alone. GRI has a cooperative R&D program with DOE. Achievement of gas heat pump targets for life-cycle cost and payback requires substantial technical advancements, particularly in engine and/or advanced absorption technologies, to improve first cost, efficiency, life, and maintenance frequency. GRI's 1989 budget for heat pumps is $20 million with an additional $2.7 million expected from industrial partners. A budget of $7 million is recommended in DOE's Conservation Program.

| Desiccants | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | 0 | $0.7 million | $2.0 million |

High latent-load applications and air conditioning in high ambient humidity areas represent opportunities for desiccant-based dehumidification and cooling systems. Needed desiccant improvements include higher performance, reduced equipment size, and improved understanding of the capability of desiccants to remove airborne pollutants as well as moisture. GRI's 1989 budget for desiccant systems is $3.5 million with $400,000 expected from industrial partners. A budget of $2 million is recommended for DOE to address advanced desiccant systems.

| Energy Conversion and Utilization Technology (Gas-Related) | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $6.0 million | $8.9 million | $7.0 million |

**Because ceramics are lightweight, retain their strength at high temperatures, and have high corrosion and wear resistance, they can reduce maintenance through the use of noncooled components, and they can increase equipment life due to improved corrosion and wear resistance. To help ensure that these benefits are fully realized, R&D is needed to address reliability and cost in the production of large components. Research is needed to develop better fabrication techniques for the forming of reliable ceramic parts and cost-effective manufacturing and quality control techniques for the large-scale production of reliable ceramic materials and components. In addition to ceramics work, DOE should fund important crosscutting research in the areas of combustion, biocatalysis, and tribology. The recommendation for gas-related research within the ECUT programs is $7 million. GRI's 1989 budget in these areas totals approximately $11.7 million.**

| Natural Gas Vehicles | FY 1987 Appropriation | FY 1988 Appropriation | FY 1989 Recommendation |
|---|---|---|---|
| | $0.2 million | 0 | $5.0 million |

**Funding over the next three years for an alternative vehicle fuels program consisting of $6 million to demonstrate the operation of alcohol-fueled and natural-gas-fueled trucks and $4 million for the comparative testing and demonstration of buses capable of running on alcohol, natural gas, and LP gas is urgently needed.**

**GRI is developing a retrofit kit for use as a basis for demonstration of natural gas/diesel in two-stroke diesel engines which make up about 95% of the heavy-duty public transit vehicles. GRI urges DOE to join in this demonstration. It is recommended that DOE pick up the cost of the vehicle conversion and the compression stations. Testing should be done in both northern and southern climates with six to ten heavy-duty vehicles in each station. A mixture of expressway and intracity buses is required with a minimum operation of 12 to 18 months. A budget of $5 million is recommended for DOE in FY 1989. GRI's 1989 budget for natural gas vehicle research is $2 million.**

SUMMARY

**GRI recommends DOE fund a gas-related program in Fossil Energy and Conservation of $94.5 million, essentially the same level Congress has already approved in past years (see Exhibit 4). The Subcommittee should note the gas industry is funding near-term research in these program areas with a GRI R&D budget of approximately $107 million. These central themes of funding adequate long-term gas research in DOE while GRI funds near-term research necessary to substitute abundant domestic gas for imported oil are sound national energy policies that Congress should implement.**

## Exhibit 1
## Major Changes in DOE Non-Nuclear Energy Programs[1/] [2/]
## ($ Millions of Budget Authority)

| | Actual FY 81 | Actual FY 83 | Current FY 88 | President Reagan FY 89 | % Change 1989:1981 |
|---|---|---|---|---|---|
| Solar Energy | $549 | $202 | $ 97 | $ 80 | -85 % |
| Energy Conservation | 292 | 134 | 154 | 81 | -72 |
| Fossil Energy | 997 | 330 | 327 | 167 | -83 |
| Electric Storage/Systems | 112 | 43 | 30 | 26 | -77 |
| Geothermal Energy | 156 | 58 | 21 | 16 | -90 |

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1/ The percentage reductions in the table do not reflect the effect of inflation on the real program level. If inflation's effect were taken into account, the real reductions would be even greater than displayed since 1989 dollars are estimated to be worth only 74% of the 1981 value.

2/ Source: House Budget Committee.

### Exhibit 2
### DOE FY 1989 Budget Request
### Major Gas-Related Research Programs
### ($ Millions)

| | FY 1988 Congressional Appropriation | FY 1989 DOE Request | FY 1989 Gas Industry Recommendation |
|---|---|---|---|
| ARTD (Gas-Related) | $ 6.00 | $ 5.10 | $ 6.00 |
| Fuel Cells (Gas-Related) | 20.50 | 6.60 | 22.70 |
| Surface Coal Gasification | 21.40 | 5.00 | 15.00 |
| Underground Coal Gasification | 2.80 | 0.30 | 1.75 |
| Unconventional Natural Gas | 10.90 | 1.70 | 20.00 2/ |
| Cooperative Venture R&D Pool | 1/ | 3.00 | 2/ |
| Conservation | 22.30 | 7.50 | 24.00 |
| NGV/Diesel Vehicles | 0.00 | 0.00 | 5.00 |
| Total | $83.90 | $29.20 | $94.45 |

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1/ Congress appropriated $2.5 million in Unconventional Natural Gas for a cooperative venture in FY 1988.

2/ $3 million for Secondary Gas Recovery Cooperative R&D Venture included in $20 million total. Includes geoscience activities.

### Exhibit 3
### Gas-Related Research Recommendations
### for DOE FY 1989 Fossil Energy and Conservation Programs
### ($ Millions)

| | GRI Recommendations DOE Budget FY 1989 | GRI Planned Budget 1989 |
|---|---|---|
| **Fossil Energy** | | |
| ARTD (Gas-Related) | $ 6.00 | $ 16.20 |
| Fuel Cells (Gas-Related) | 22.70 | 3.80 |
| Coal Gasification | 16.75 | 1.90 |
| Unconventional Natural Gas | 10.00 | 30.40 |
| Gas-Related Geosciences | 10.00 | 2.70 |
| Gas-Enhanced Emission Control | N/A | 6.50 |
| Subtotal | $ 65.45 | $ 61.50 |
| **Conservation R&D** | | |
| Heat Pumps & Prime Movers | $ 7.00 | $ 20.00 |
| Industrial Cogeneration | 5.00 | 6.90 |
| ECUT | 7.00 | 11.70 |
| Indoor Air Quality | 3.00 | 1.50 |
| Desiccant Systems | 2.00 | 3.50 |
| Natural Gas Vehicles | 5.00 | 2.00 |
| Subtotal | $ 29.00 | $ 45.60 |

### Exhibit 4
### Recommended DOE Gas-Related Budget for FY 1989 For Fossil and Conservation R&D ($ Millions)

|  | FY 1986 Approp. | FY 1987 Approp. | FY 1988 Approp. | FY 1989 Budget Recommend's. |
|---|---|---|---|---|
| **Fossil** |  |  |  |  |
| ARTD | $10.4 | $ 8.6 | $ 6.0 | $ 6.0 |
| Fuel Cells (Gas-Related) | 19.4 | 14.9 | 20.5 | 22.7 |
| Surface Coal Gasification | 41.3 | 24.6 | 21.4 | 15.0 |
| Unconventional Natural Gas | 8.5 | 8.1 | 10.9 1/ | 20.0 1/ |
| Underground Coal Gasification (Technology Base) | 4.1 | 2.4 | 2.8 | 1.8 |
| Subtotal | $83.7 | $58.6 | $61.6 | $65.5 |
| Gas-Enhanced Flue-Gas Cleanup (Clean Coal Technology Fund) | N/A | 15.0 | 0.0 | 0.0 |
| Subtotal | $83.7 | $73.6 | $61.6 | $65.5 |
| **Conservation** |  |  |  |  |
| Heat Pumps & Prime Movers | $ 4.2 | $ 5.0 | $ 5.8 | $ 7.0 |
| Industrial Cogeneration | 4.7 | 5.0 | 5.0 | 5.0 |
| ECUT (Gas-Related) | 2.0 | 6.0 | 8.9 | 7.0 |
| Indoor Air Quality | 1.4 | 6.0 | 1.9 | 3.0 |
| Desiccant Systems | 0.0 | 0.0 | 0.7 | 2.0 |
| Natural Gas Vehicles | 0.0 | 0.2 | 0.0 | 5.0 |
| Subtotal | $12.3 | $22.2 | $22.3 | $29.0 |
| Total--Fossil Energy & Conservation | $96.0 | $95.8 | $83.9 | $94.5 |

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1/ Includes geoscience activities.

## STATEMENT OF MICHAEL BALY III, VICE PRESIDENT, GOVERNMENT RELATIONS, AMERICAN GAS ASSOCIATION

## ACCOMPANIED BY BILL TAVELER, MANAGER, TECHNOLOGY DEPARTMENT, AMERICAN GAS ASSOCIATION

Senator REID. Michael Baly III, the American Gas Association.

Mr. BALY. I am vice president of the American Gas Association. With me is Bill Taveler, our manager of technology development, on loan from New York State Electric & Gas Co.

The United States, we believe, needs an adequately funded research program not only to meet future energy needs but also to remain competitive in today's world economy. Gas-related research may be the most important component of DOE's research program.

Natural gas is the cleanest of all fossil fuels. No other single fossil fuel can be used in as many applications as natural gas without major negative environmental consequences. Indeed, the air pollution problems resulting from the combustion of other fossil fuels has caused many in Congress and the administration to call for solutions to the ozone nonattainment and acid deposition problems facing the Nation today.

Natural gas can be delivered quickly, efficiently, and without major environmental impact, through the existing million-mile transmission and distribution system. Natural gas can be converted into usable energy more efficiently and inexpensively than other fossil fuels. With these attributes, there is little question that natural gas will play an important role in the Nation's energy future and given the multitude of uses natural gas can serve, DOE should invest more money, not less, on gas-related research.

DOE's support of gas supply-related research will ensure the recovery of a larger percentage of the total gas resource base, which is several thousand times larger than the presently recoverable gas resource base. With foreseeable technology and economics, there are 630 Tcf of potential conventional resources in the lower 48 States alone. When 159 Tcf of proven reserves are added to this number, the lower 48 States have the equivalent of about 50 years of conventional supply at 1986 production levels.

Technological breakthroughs are necessary to increase long-term gas supplies dramatically. Federal funding is necessary to develop the long-term, high-risk technology base necessary to achieve these breakthroughs in order for the United States to reduce its reliance on foreign oil and compete in the global marketplace.

We are pleased that this subcommittee has recognized the importance of gas-related research. By restoring by almost threefold the enormous cuts proposed by DOE last year for unconventional gas recovery, you have reversed a long-term downward trend in R&D funding. We hope this trend will be continued.

## SPECIFIC FUNDING RECOMMENDATIONS

Our specific funding recommendations are as follows:

For fossil energy R&D, $65.45 million:

One, for conventional natural gas, $20 million. Tight formations gas is produced using unconventional recovery techniques. AGA estimates that favorable economic conditions and substantial investment in tight formations R&D programs could result in annual incremental production of up to 4 Tcf of gas by the year 2000, while the current rate of technology would produce approximately 1 Tcf by that year.

In order to optimize the amount of gas recovered from unconventional sources, basic geoscience research must be expanded. We, therefore, urge DOE to implement a hydrocarbon research program based on the 1987 ERAB recommendation and commit $10 million of the fiscal year 1989 funds slated for unconventional natural gas to this project.

This research should be aimed at increasing our knowledge of the geological/geochemical/geophysical characteristics and parameters of both conventional and unconventional formations.

Moreover, because of the potentially enormous size of unconventional gas resources, extensive research is necessary just to verify how much may be technologically and economically recoverable. Funds for more research on advanced simulation and drilling techniques and the collection of information for a data base must also be made available. Of our $20 million recommendation, we also believe $5 million should be slated for coal seam gas recovery.

Two, surface coal gasification, $15 million. With vigorous R&D support, surface coal gasification could contribute up to 200 Bcf to our supplies by the year 2000 compared to 100 Bcf at the current rate. Contemporary technologies allow significant production of gas from coal. However, substantial research into the gasification process is needed to accommodate high-sulfur Eastern coals and combustion-inhibiting coal fines. Scientific and engineering feasibility studies of advanced generation gasification processes must also be conducted to develop a technological data base for such processes. In addition, research must be conducted to identify the proper treatment and disposal techniques for gasification waste byproducts.

Three, fuel cells, $22.7 million. The electrical conversion efficiency of gas-fired fuel cells is approximately 15 to 20 percent greater than the conversion efficiency of traditional electrical generation. Combining fuel cells with certain cogeneration applications could achieve combined electrical and thermal conversion efficiencies of 80 percent, compared to conversion efficiencies of 30 to 35 percent by the conventional electric utility.

As work on the phosphoric acid fuel cell reaches its conclusion, the gas industry's focus is directed toward the development of advanced fuel cells which are still years away. Research must be conducted to develop second-generation molten carbonate fuel cells capable of processing gases containing various impurities, as well as to develop other advanced, direct conversion concepts such as solid oxide and proton conductor fuel cells.

Four, underground coal gasification, $1.75 million. Underground coal gasification could substantially increase the coal resource base, 93 percent of which presently cannot be recovered economically using conventional mining techniques. Moreover, underground coal gasification offers potential environmental, economic, and safety advantages over conventional mining. Extensive field testing and environmental monitoring is necessary to tap this resource. To date, DOE-sponsored field tests of the controlled-retracting-injection-point [CRIP] technology have been conducted in the western United States. This technology now needs to be tested and demonstrated on eastern bituminous coals.

Five, advanced research and technology development, $6 million. The advanced research and technology development program generally provides a technology base for ongoing fossil energy projects and for advanced process development and needs to be adequately funded.

Our second major recommendation, for conservation, is for $29 million, as follows:

One, gas heat pumps, $7 million. More research is necessary to develop highly efficient, reliable, and cost-effective gas heat pumps for residential and commercial applications. In order to improve durability, maintenance, and endurance, such research must include the evaluation of promising technical approaches, fundamental research in basic heat pump concepts, processes, phenomena and materials, and research on generic component development. These activities must be integrated into overall heat pump system development and analysis. Presently, the most promising gas heat pump concepts are the dual-cycle absorption concept, absorption technology using fluids in novel cycles, and engine-driven concepts using available and emerging internal combustion technology.

Two, industrial cogeneration, $5 million. Gas-fired cogeneration can supply both electrical and thermal energy service in a highly efficient manner. DOE's research should focus on developing advanced materials and advanced heat transfer, thermodynamic and microprocessor control concepts. These components and concepts must then be integrated into prototype units to allow industry to evaluate the effectiveness, efficiency, reliability, and flexibility of cogeneration systems.

Three, natural gas vehicles [NGV's], $5 million. Broad development of vehicles fueled by compressed natural gas would serve the national interest by improving air quality, since the emissions from natural gas vehicles contain only a fraction of the pollutants produced by gasoline-powered vehicles.

Conversion to partial or dedicated natural gas/heavy-duty diesel engines holds the promise of a low-emissions engine, but R&D is required to address the well-recognized technical difficulties. Moreover, the technology forcing EPA particulate emissions standards effective in 1991 make development of advanced dedicated NGV's imperative.

Fundamental research is necessary to acquire a thorough understanding of the intricacies of gaseous fuel injection, carburation, manifolding, combustion, power optimization, and emissions control so that natural gas can become broadly accepted as a transportation fuel. Further research into novel gas compression concepts is necessary to advance the development of compressor technology. Research must also be conducted on advanced storage systems to increase the understanding of gas storage technology, particularly the fundamental principles of natural gas adsorption, absorption, clathration, and catalysis.

Other research projects that are included in our conservation recommendation of $29 million are: (*a*) $3 million for DOE research on indoor air quality; (*b*) $7 million for tribology, ceramics, and other materials-type research for the energy conservation utilization technology program [ECUT]; and (*c*) $2 million for research on desiccant technology which is used in gas cooling.

Again, let me commend you for this subcommittee's leadership and foresight for gas R&D.

Senator REID. I appreciate that.

I had a meeting this last Friday with the president of Southwest Gas, and they are going to convert all of their vehicles to natural gas. That will be Nevada, Arizona, and New Mexico. So, that will make the station even bigger.

Mr. BALY. Thank you. Very good.

Senator REID. How will AGA work with the geosciences to which you refer?

Mr. BALY. We are not quite sure, Mr. Chairman, how that geosciences institute should be structured in terms of the universities or the States, the 15 States that are interested in it. Certainly, there is some ongoing activity, and Morgantown, the Department of Energy, they have expressed some interest in it.

But the key, we believe, is to start moving. Of the $20 million, we hope that at least one-half of that could be devoted to natural gas. That was AGA and GRI and IGT's recommendation: $10 million for geosciences for natural gas-related R&D.

Senator REID. Would you contribute funds to support this research, or do you know?

Mr. BALY. We would work with GRI to see what cost sharing might be involved there. AGA itself does not contribute directly. Years ago GRI was developed to provide that kind of cost sharing.

## PREPARED STATEMENT

Senator REID. Thank you very much.

Mr. BALY. Thank you, Mr. Chairman.

[The statement follows:]

## STATEMENT OF MICHAEL BALY III

Mr. Chairman and Members of the Subcommittee.

I am Michael Baly III, Vice President, Government Relations for the American Gas Association (A.G.A.). The American Gas Association is a national trade association comprised of some 250 natural gas distribution and transmission companies serving over 166 million natural gas consumers throughout the United States. I am pleased to appear before you in support of natural gas-related research and development (R&D) conducted or sponsored by the Department of Energy (DOE).

The natural gas industry recommends an appropriation of $94.45 million for all DOE gas-related R&D in Fiscal Year (FY) 1989 falling under the jurisdiction of this Subcommittee. This total includes $65.45 million for fossil energy R&D and $29.0 million for conservation R&D, which includes $5.0 million for a natural gas vehicle R&D program.

### THE IMPORTANCE OF GAS-RELATED RESEARCH

The United States needs an adequately funded DOE research program not only to meet future energy needs, but also to remain competitive in today's world economy. Gas-related research may be the most important component of DOE's research program.

Natural gas is the cleanest of all fossil fuels. No other single fossil fuel can be used in as many applications as natural gas without major negative environmental consequences. Indeed, the air pollution problems resulting from the combustion of other fossil fuels has caused many in Congress and the Administration to call for solutions to the ozone nonattainment and acid deposition problems facing the nation today.

Natural gas can be delivered quickly, efficiently and without major environmental impact, through the existing million-mile transmission and distribution system. Natural gas can be converted into usable energy more efficiently and inexpensively than other fossil fuels. With these attributes, there is little question that natural gas will play an important role in the nation's energy future and given the multitude of uses natural gas can serve, DOE should invest more money, not less, on gas-related research.

DOE's support of gas supply-related research will ensure the recovery of a larger percentage of the total gas resource base which is several thousand times larger than the presently recoverable gas resource base. With foreseeable technology and economics, there are 630 Tcf of potential conventional resources in the lower-48 states alone. When 159 Tcf of proven reserves are added to this number, the lower-48 states have the equivalent of about 50 years of conventional supply at 1986 production levels. Technological breakthroughs are necessary to increase long-term gas supplies dramatically. Federal funding is necessary to develop the long-term, high-risk technology base necessary to achieve these breakthroughs in order for the U.S. to reduce its reliance on foreign oil and compete in the global marketplace.

We are pleased that this Subcommittee has recognized the importance of gas-related research. By restoring by almost threefold the enormous cuts proposed by DOE last year for unconventional gas recovery, you have reversed a long-term downward trend in R&D funding. We hope this trend will be continued.

### SPECIFIC FUNDING RECOMMENDATIONS

FOSSIL ENERGY R&D: $65.45 Million

(1) Unconventional Natural Gas ($20 Million)

Tight formations gas is produced using unconventional recovery techniques. A.G.A. estimates that favorable economic conditions and substantial investment in tight formations R&D programs could result in annual "incremental" production of up to 4.0 Tcf of gas by the year 2000, while the current rate of technology would produce approximately 1.0 Tcf by that year.

In order to optimize the amount of gas recovered from unconventional sources, basic geoscience research must be expanded. We therefore urge DOE to implement a hydrocarbon research program based on the 1987 ERAB recommendation and commit $10 million of the FY 1989 funds slated for unconventional natural gas to this project. This research should be aimed at increasing our knowledge of the geological/geochemical/geophysical characteristics and parameters of both conventional and unconventional formations. Moreover, because of the potentially enormous size of unconventional gas resources, extensive research is necessary just to verify how much may be technologically and economically recoverable. Funds for more research on advanced stimulation and drilling techniques and the collection of information for a database must also be made available. Of our $20 million recommendation, we also believe $5 million should be slated for coal seam gas recovery.

(2) Surface Coal Gasification ($15 Million)

With vigorous R&D support, surface coal gasification could contribute up to 200 Bcf to our supplies by the year 2000 compared to 100 Bcf at the current rate. Contemporary technologies allow significant production of gas from coal; however, substantial research into the gasification process is needed to accommodate high-sulfur Eastern coals and combustion-inhibiting coal "fines." Scientific and engineering feasibility studies of advanced generation gasification processes must also be conducted to develop a technological database for such processes. In addition, research must be conducted to identify the proper treatment and disposal techniques for gasification waste byproducts.

(3) Fuel Cells ($22.7 Million)
The electrical conversion efficiency of gas-fired fuel cells is approximately 15-20 percent greater than the conversion efficiency of traditional electrical generation. Combining fuel cells with certain cogeneration applications could achieve combined electrical and thermal conversion efficiencies of 80 percent, compared to conversion efficiencies of 30-35 percent by the conventional electric utility. As work on the phosphoric acid fuel cell reaches its conclusion, the gas industry's focus is directed toward the development of advanced fuel cells which are still years away. Research must be conducted to develop second-generation molten carbonate fuel cells capable of processing gases containing various impurities, as well as to develop other advanced, direct conversion concepts, such as solid oxide and proton conductor fuels cells.

(4) Underground Coal Gasification ($1.75 Million)
Underground coal gasification could substantially increase the coal resource base, 93 percent of which presently cannot be recovered economically using conventional mining techniques. Moreover, underground coal gasification offers potential environmental, economic and safety advantages over conventional mining. Extensive field testing and environmental monitoring is necessary to tap this resource. To date, DOE sponsored field tests of the controlled-retracting-injection-point (CRIP) technology have been conducted in the Western United States. This technology now needs to be tested and demonstrated on Eastern bituminous coals.

(5) Advanced Research & Technology Development ($6 Million)
The Advanced Research and Technology Development program generally provides a technology base for ongoing fossil energy projects and for advanced process development and needs to be adequately funded.

CONSERVATION: $29 Million
(1) Gas Heat Pumps ($7 Million)
More research is necessary to develop highly-efficient, reliable and cost-effective gas heat pumps for residential and commercial applications. In order to improve durability, maintenance and endurance, such research must include the evaluation of promising technical approaches, fundamental research in basic heat pump concepts, processes, phenomena and materials, and research on generic component development. These activities must be integrated into overall heat pump system development and analysis. Presently the most promising gas heat pump concepts are the dual cycle absorption concept, absorption technology using fluids in novel cycles, and engine driven concepts using available and emerging internal combustion technology.

(2) Industrial Cogeneration ($5 Million)
Gas-fired cogeneration can supply both electrical and thermal energy service in a highly efficient manner. DOE's research should focus on developing advanced materials and advanced heat transfer, thermodynamic and microprocessor control concepts. These components and concepts must then be integrated into prototype units to allow industry to evaluate the effectiveness, efficiency, reliability, and flexibility of cogeneration systems.

(3) Natural Gas Vehicles (NGVs) ($5 Million)
Broad development of vehicles fueled by compressed natural gas would serve the national interest by improving air quality, since the emissions from natural gas vehicles (NGVs) contain only a fraction of the pollutants produced by gasoline-powered vehicles. Conversion to partial or dedicated natural gas/heavy duty diesel engines holds the promise of a low-emissions engine, but R&D is required to address the well recognized technical difficulties. Moreover, the technology forcing EPA particulate emissions standards effective in 1991, make development of advanced, dedicated NGVs imperative.

Fundamental research is necessary to acquire a thorough understanding of the intricacies of gaseous fuel injection, carburetion, manifolding, combustion, power optimization and emissions control so that natural gas can become broadly accepted as a transportation fuel. Further research into novel gas compression concepts is necessary to advance the development of compressor technology. Research must also be conducted on advanced storage systems to increase the understanding of gas storage technology, particularly the fundamental principles of natural gas adsorption, absorption, clathration and catalysis.

Other research projects that are included in our conservation recommendation of $29 million are: (a) $3.0 million for DOE research on indoor air quality; (b) $7.0 million for tribology, ceramics, and other materials-type research for the energy conservation utilization technology program (ECUT); and (c) $2.0 million for research on desiccant technology which is used in gas cooling.

### CONCLUSION

The natural gas industry recognizes that the continuing budget deficit places severe constraints on federal energy research dollars. Over the last two years, we have pared back our recommendations, requesting instead funding for only those technologies that are essential and prudent for the orderly development of new, domestic gas supply and utilization technologies. If Congress adopts our research recommendations, the nation will, over the long term, improve its energy supply security and energy efficiency.

## STATEMENT OF RAYMOND C. REX, MANAGER OF RESEARCH AND ENGINEERING, HY-CRUDE CORP.

### PREPARED STATEMENT

Senator REID. The next witness will be Raymond C. Rex, from Hy-Crude.

Welcome, Mr. Rex.

Mr. REX. Thank you, Mr. Chairman. My name is Raymond Rex. I am manager of research and engineering for Hy-Crude Corp.

Senator REID. Do you have a statement?

Mr. REX. I have handed it in.

[The statement follows:]

## STATEMENT OF RAYMOND C. REX, JR.

My name is Raymond Rex. I am Manager of Research and Engineering of HYCRUDE Corporation. This testimony addresses the Department of Energy's non-nuclear R&D Authorization for oil shale research in fiscal year 1989. HYCRUDE Corporation supports a $6.0 million program for Eastern Oil Shale R&D in fiscal year 1989 consisting of:

- o $2.5 million to continue the DOE contract for the development of the PFH process under Basic Process Research
- o $2.0 million for Novel Concepts Research
- o $1.5 million for Environmental Studies

Eastern oil shale is an important domestic energy resource that could supply over 400 billion barrels of oil, if properly developed, and play a major role in reducing our Nation's dependence upon imported oil.The United States continues to import a significant and increasing portion of the liquid fuels necessary to keep our society functioning and to supply our defense needs.

Over the past few years the oil shale research program has received only minimal support from the Administration even though oil shale has the potential to be a major contributor to our domestic supply of transportation fuel. In recognition of the strategic importance of Eastern Oil Shale, Congress has shown excellent judgement and foresight in maintaining a modest funding level for this valuable research and development program since FY'85.

These research programs have addressed a wide range of issues and have produced encouraging results. It has been shown that processing methods specifically developed for Eastern oil shales result in oil yields that are commensurate with those obtained for Western oil shales of similar carbon content. It has also been shown that lower grade shales can be enriched by beneficiation. Beneficiation techniques under development in this program, can reduce up to 70% of the amount of material to be processed in the retort, thus helping to reduce processing plant costs and, beneficiated oil shale requires up to 40% lower hydrogen consumption, which can reduce operating costs.

In this third year of the program tests will be conducted in a 60 ton per hour, 6 foot diameter cold flow model to determine the maximum concentration of fines that can be fed with the coarse shale without adversely affecting gas distribution and thus the oil yield.

Upon completion of this three year DOE research contract, the development of this process will have reached the stage when the data base is in place and the next logical step is the construction of a small demonstration plant. The final stages of the initial program will study the combination of oil shale fines gasification and a hydroretorting. Synthesis gas retorting of oil shales (to further reduce hydrogen requirements) will also be investigated.

HYCRUDE Corporation is now in the final year of a successful research program for the development of the moving-bed hydroretorting (HyTort) process for Eastern oil shales.

The moving-bed hydroretorting data base is a valuable tool for other researchers in the development of second generation Eastern oil shale retorting technologies. The development of these new processes will further improve the technology and the process economics for recovering oil from Eastern shales. It is to continue to strive for these improvements to ensure that the best technologies are available should a sudden change of events abruptly dictate the production of alternative fuels.

In early fiscal year 1988, a unique three-year Eastern Oil Shale research program was initiated. This program, which utilizes the Eastern shale processing and environmental data base acquired over the last several years, takes an innovative, cost-effective team approach to developing a second generation retorting technology. In addition to the development of the new retorting process, the scope of work encompasses raw shale treatment and enrichment, mitigation of environmental impacts and product upgrading.

The Institute of Gas Technology in Chicago is the prime contractor responsible for the development of the pressurized fluidized-bed hydroretorting (PFH) process. IGT also coordinates research teams under subcontract for the development of peripheral technologies such as beneficiation and environmental mitigation that are vital parts of an integrated oil shale retorting plant. There is free exchange of information among the researchers and meetings are held to ensure that each research subcontractor is cognizant of developments that could potentially impact his area of research. This direct communication provides the expeditious exchange of information between experts with diverse backgrounds so that process development is accelerated.

The subcontractors on the project team include the Mineral Resources Institute of the University of Alabama, which, in conjunction with the University of Pittsburgh will be responsible for the development of more efficient and economical means to beneficiate Eastern oil shales. Ohio State University and the Illinois Institute of Technology will participate in the program by developing techniques for removing sulfur and nitrogen from the shale, and removing fines from the shale oil. Tennessee Technological University and the University of Michigan are evaluating the potential environmental impacts and the feasibility of recovering potentially leachable metals.

Thank you for this opportunity to present my views to you today and for the past support your committee has given to the Eastern Oil Shale Program. I will be happy to answer any questions you may have concerning the Eastern Oil Shale Program.

## EASTERN OIL SHALE

## PROGRAM FACT SHEET

## FY 1989

### Basic Process Research

Retorting Eastern oil shale in the presence of hydrogen has been shown to dramatically increase the yield of oil obtained when compared to conventional thermal retorting. A novel approach is now being taken to develop a second generation retorting concept that will maximize the benefit obtainable by retorting Eastern oil shales in the presence of hydrogen. The development of this new retorting process concept is comprehensive: it not only includes the development of a new retorting technology itself, but the development of the peripheral technologies such as shale pretreatment, gas cleanup, oil upgrading, and mitigation of potential environmental impacts, that can have a great effect on the overall process economics and efficiency of shale retorting. The concurrent development of the individual building blocks that make up an oil shale retorting process plant will result in greater compatibility and optimization of the various processes than would result if each were developed independently.

Because no one organization has expertise in all of these research areas, a multi-disciplinary research team is developing the new process concept, which revolves around the pressurized, fluidized-bed hydroretorting (PFH) process conceptualized by the Institute of Gas Technology (IGT). The PFH process provides a more efficient method of contacting the hydrogen rich gases with the oil shale. Previous work in hydrogen was performed using larger size pieces of oil shale which were fed by gravity through a moving-bed and were contacted countercurrently with hydrogen rich gas. In PFH, smaller size shale particles are fluidized with hydrogen rich gas which improves the thermal efficiency of the process and results in faster conversion of the shale to oil.

Furthermore, the PFH process can more readily be used to process oil shale that has been beneficiated to enrich the organic content of the feed. Beneficiation of eastern oil shales has been shown to result in a greatly enriched feedstock, which reduces the required capacity of the retorting plant per unit of oil produced. However, beneficiation requires that the shale be finely ground for processing. In order for beneficiated shale to be processed in the moving-bed hydroretorting process, the beneficiated shale must first be briquetted so that it can be fed into the retort at a larger particle size which can be handled in this type of retort.

The University of Alabama's Mineral Resources Institute (MRI) is leading the research effort to economize the beneficiation process and to provide feedstock suitable for retorting in the PFH process. MRI is being assisted in these activities by the University of Pittsburgh.

Other members of the research team are the Illinois Institute of Technology, Ohio State University, Tennessee Technological University and the University of Michigan. These researchers will participate in the program by developing techniques for removing sulfur and nitrogen from the shale, removing fines from shale oil, and evaluating the potential environmental impacts and the possibility of recovering potentially leachable metals. The research team concept ensures that substantial improvements in the overall process scheme and economics are attained as quickly as possible.

Hycrude Corporation recommends $2.5 million for the continuation of the development of the PFH process concept by a multidisciplinary research team.

## Novel Concepts Research

At the end of FY'86, three awards were made for research on novel concepts for oil shale processing. One of the projects was for research on an inert-gas, atmospheric-pressure fluidized-bed retort system for eastern oil shale, which is being developed by the Kentucky Center for Energy Research Laboratory. The continued support and expansion of research on novel concept is important to ensure that state-of-the-art retorting techniques will be available for the development of the Eastern oil shale resource. An additional novel concepts solicitation, which does not require co-funding by research teams, should be published in FY'89.

Hycrude Corporation recommends $2.0 million in FY'89 for continuing novel concepts research.

## Environmental Studies

As long as research is conducted to develop new Eastern oil shale retorting methods and new technologies for shale treatment, product upgrading, and other peripheral technologies, environmental research should be conducted to determine the potential environmental impacts of these new processing concepts so that the technological aspects of minimizing environmental concerns can be addressed.

Water management( both within the retorting process plant, and in the nearby geographic area), air quality, and spent shale disposal issues should be investigated, and research should be performed to mitigate any environmental impacts discovered as a result of the newly identified processing concepts.

Hycrude Corporation recommends $1.5 million in FY'89 to conduct environmental studies.

Senator REID. Please proceed.

Mr. REX. Eastern oil shale is an important fossil energy resource in the United States that could provide, if properly developed, over 400 billion barrels of oil and play a major role in reducing our Nation's dependency on imported oil. Over the past few years oil shale has received minimal support from the administration, even though oil shale has the potential to be a major contributor toward transportation fuel.

In recognition of the strategic importance of the oil shale, Congress had shown excellent judgment in maintaining a modest funding level for this valuable research and development program since fiscal year 1985. These research programs have addressed a wide variety of issues and produced encouraging results. It has been shown that processing methods specifically developed for eastern oil shales result in yields commensurate with those obtained from western oil shales of similar carbon content, and it shows that lower-grade shales can be enriched by beneficiation, which reduces the amount of material that needs to be processed in the retorts by up to 70 percent.

Hy-Crude Corp. is now in the final year of a successful research program for the development of the process for the retorting of shales. Upon completion of the research contract at the end of this fiscal year, the development of the process will have reached the stage where the data base is in place and the next logical step is the construction of a small demonstration plant.

This existing data base is a valuable tool for other researchers in the development of second-generation retorting technologies. Development of these processes will further improve both the technology and the economics for recovering oil from eastern oil shales. It is imperative to continue to strive for these improvements to ensure that the best technologies are available should a sudden change of events dictate—abruptly dictate—the production of alternative fuels.

In early fiscal year 1988 a unique program was initiated. This program was utilized as the eastern oil shale processing and data base acquired over the last several years. It takes an innovative, cost-effective team approach to the development of a second-generation retorting technology.

The Institute of Gas Technology in Chicago is the prime contractor responsible for the development of the pressurized fluidized bed retort program, and we coordinate research teams for development of peripheral technologies such as beneficiation and environmental mitigation that are vital parts of an integrated oil shale retorting plant.

There is a free exchange of information among the researchers, and meetings are held to ensure that each research subcontractor is cognizant of developments in his area that could potentially impact his area of research. This direct communication provides an expeditious exchange of information between experts with diverse backgrounds so that process development is accelerated.

The subcontractors in the project team include the Mineral Resources Institute of the University of Alabama, which in conjunction with the University of Pittsburgh will be responsible for the development of more efficient and economical means to beneficiate eastern oil shales.

Ohio State University and the Illinois Institute of Technology will participate in the program by developing techniques for the removal of nitrogen and sulfur from the shale and removing fines from the oil shale.

Tennessee Technological University and the University of Michigan are evaluating the potential environmental impacts and the feasibility of removing potentially leachable metals.

Hy-Crude Corp. supports a $6 million eastern oil shale R&D program in fiscal year 1989 consisting of $2.5 million to continue DOE research for the PFH process, $2 million for novel concepts research, and $1.5 million for environmental studies.

I thank you for this opportunity to present my views and for the past support your committee has given to eastern oil shales. I would be happy to answer any questions you may have on the subject.

Senator REID. I appreciate your testimony.

Tell me the difference between eastern and western oil shale.

Mr. REX. Eastern is a leaner grade, about one-half the oil yield of western oil shale.

Senator REID. About what?

Mr. REX. About one-half the oil yield of western oil shales when it is treated in a conventional thermal-type retorting process. The purpose of the existing program at Hy-Crude and the future programs is to develop processes specifically for eastern oil shales to obtain commensurate yields.

Senator REID. Where is most of it located?

Mr. REX. Kentucky, Indiana, Ohio, Alabama, Michigan, primarily.

Senator REID. Is there a lot of it?

Mr. REX. 400 billion barrels.

Senator REID. I saw that in your statement. That is a lot. How does that compare to the estimated quantity in Wyoming and that area out there of the western oil shales?

Mr. REX. Wyoming's——

Senator REID. I mean all of it in the West.

Mr. REX. There are at least twice that in the oil shales in the West.

Senator REID. I have enjoyed your testimony. I am committed to doing what I can to develop some alternate energy sources. I think it is too bad that the administration has so significantly cut back the research in alternate energy sources, including the possibilities of oil shale production.

Thank you very much for your testimony.

Mr. Rex. Thank you for your support, Mr. Chairman.

## STATEMENT OF VINCENT J. COATES, JR., VICE PRESIDENT, MHD INDUSTRIAL FORUM

Senator Reid. The witness now before us is Vincent J. Coates, MHD Industrial Forum.

Mr. Coates. Good morning, Mr. Chairman. My name is Vincent J. Coates, Jr. I am vice president of the MHD Industrial Forum. Mr. Chairman, I appreciate the opportunity to be here this morning.

I also have a statement which you might find interesting, which was prepared by Dr. Aurora, who is chairman of the Edison Electric Institute MHD task force, in which he endorses MHD. It was originally prepared for the House Science and Technology Committee. I will leave it for you.

Senator Reid. Thank you.

[The statement follows:]

## STATEMENT OF VINCENT J. COATES, JR.

MHD power generation is a method of producing electric power by using a high temperature gas to replace the rotating equipment used in conventional plants.

DOE's Second Report to the Congress on Emerging Clean Coal Technologies in May 1987, stated the technical, economic and environmental benefits of MHD power generation as well as the cost and other advantages that would derive through retrofitting existing power plants with MHD retrofit units. The report concluded that "the construction of MHD retrofit power plants appears to be a natural progression in MHD development after the satisfactory completion of the Proof of Concept program."

During 1987 DOE awarded four major multi-year contracts (Table 2) to implement this Proof of Concept Phase [POC] of MHD development. The POC implemented the DOE "Redirected MHD Program" plan formulated by DOE in consultation with industry and submitted to Congress in 1984.

Table 1 shows the funding level industry considers necessary to complete the POC program on schedule in 1992, while satisfying the requirement of Public Law 99-190 that cost-sharing increase each year.

Table 1

| FY: | 1988 | 1989 | 1990 | 1991 | 1992 | Total |
|---|---|---|---|---|---|---|
| Budget, Millions of Dollars: | 35 | 40.9 | 43 | 40 | 29 | 187.9 |

The impact of maintaining the current year's $35 million budget in FY 89 instead of increasing it to $40.9 million is shown in Table 2. Note it will add an additional $28 million to the cost of the POC program and will add one year to the schedule shown in Figure 1.

Table 2

FY 1989 Funding Levels

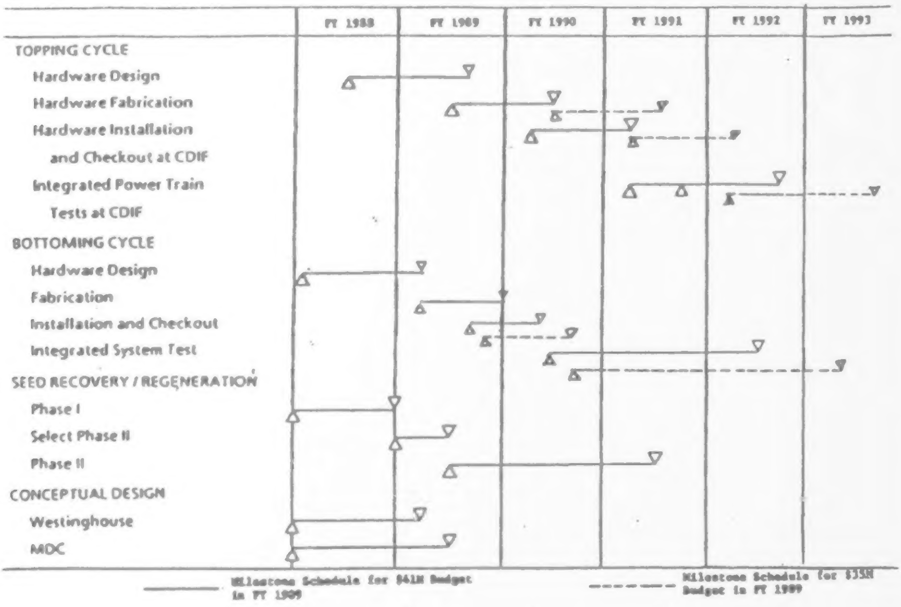
| | $40.9 M | $35 M | Prime Contractor |
|---|---|---|---|
| Topping Cycle | 28 | 22.6 | TRW, California & CDIF, Montana |
| Bottoming Cycle | 11.4 | 11.0 | Babcock & Wilcox, Ohio & CFF, Univ. of Tenn. Space Inst. |
| Seed Recovery/ Regeneration | 0.2 | 0.2 | Babcock & Wilcox, Ohio |
| Retrofit Conceptual Design | 0.4 | 0.4 | Westinghouse, Pennsylvania & MHD Development Corp., Montana (1 contract each) |
| Program Support & HQ Costs | 0.9 | 0.8 | |

Table 2 assumes that the Seed Recovery/Regeneration and the Retrofit Conceptual Design contracts, now in progress, would not be affected and would be completed on schedule. Also, that the hardware design and fabrication for the bottoming cycle would be unaffected since they are relatively low cost items and work is well underway. A reduced budget in FY 89 would delay the installation and checkout of this hardware at the Coal Fired Flow Facility [CFFF] and would extend the Bottoming Cycle program one year. A significant cost item in FY 89 Topping Cycle program is the purchase and fabrication of hardware needed for components to be tested in the Component Development and Integration Facility [CDIF]. If the FY 89 budget were to be less than the proposed $40.9 M level, the fabrication of hardware would have to be postponed until FY 90. This would delay the completion of the Topping Cycle Program until 1993 and add $28 million to the POC development program.

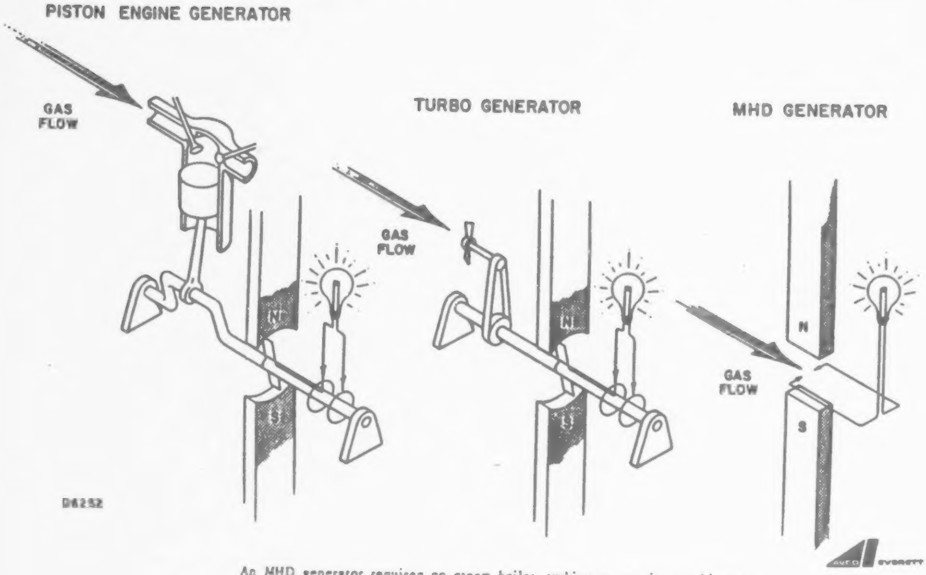
In spite of DOE´s three year delay in starting the POC program, the private sector has continued to meet its obligations. There is wide-spread concern as to the government´s reliability as a partner. More delay will only contribute further to this attitude. Most importantly, it will delay the U.S. program at a time that the Soviet Union expands its lead in MHD technology and other countries increase their activity.

FIGURE 1

MHD PROGRAM SCHEDULE

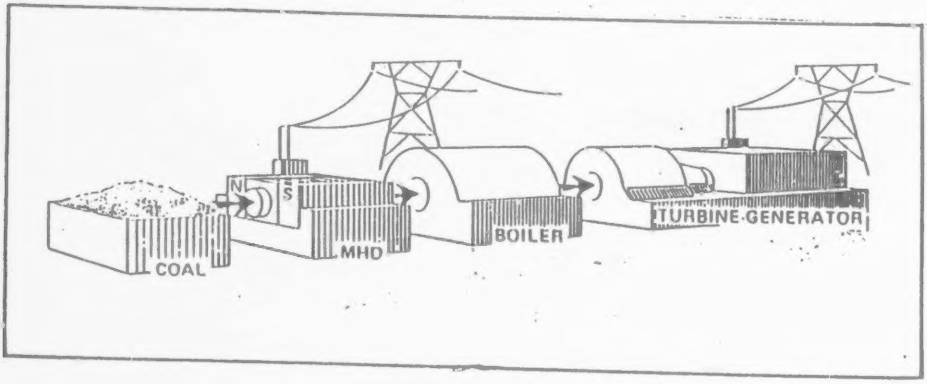


## EVOLUTION OF THE MHD POWER CONCEPT

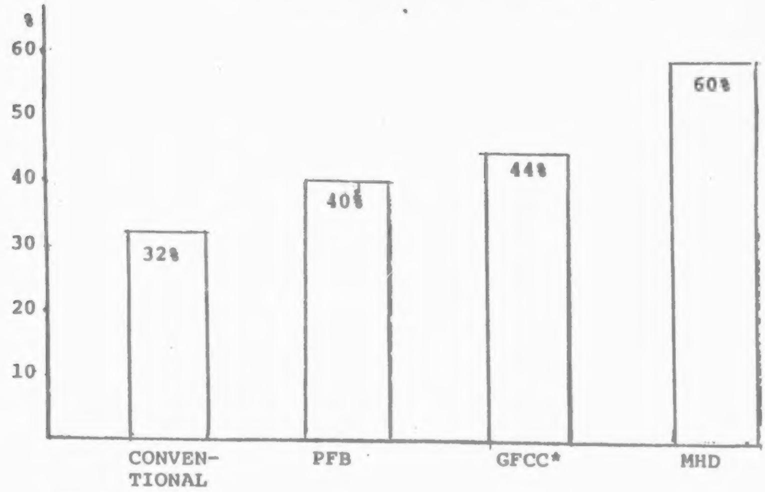

PISTON ENGINE GENERATOR
GAS FLOW
TURBO GENERATOR
GAS FLOW
MHD GENERATOR
N
GAS FLOW
S
D6252
AVCO EVERETT

An MHD generator requires no steam boiler, turbine or rotating machinery. In a conventional power plant, electricity is generated by rotating a solid copper conductor (armature) through a magnetic field. An MHD generator uses a high temperature conducting gas as its armature.

## MHD/STEAM COMBINED CYCLE POWER PLANT


N
S
COAL
MHD
BOILER
TURBINE-GENERATOR

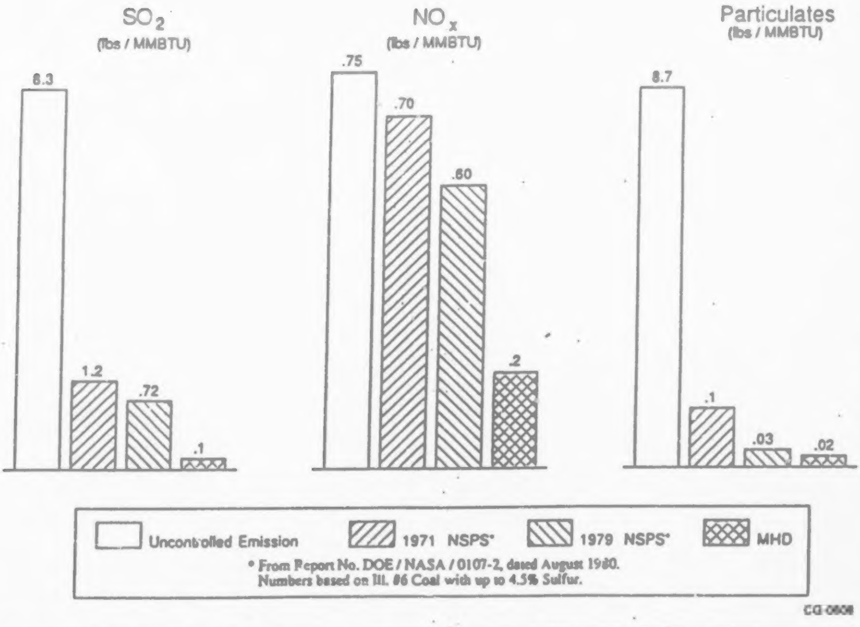
ADVANCED POWER SYSTEMS EFFICIENCY COMPARED
TO CONVENTIONAL POWER PLANTS



SOURCES:
DOE Advanced Power Train Studies by Westinghouse and General Electric
NASA Parametric Study of MHD Power Plants by General Electric and Avco Research Laboratory

*PFB: Pressurized Fluidiaed Bed
*GFCC: Integrated Gas Fired Combined Cycle Gas Turbine

Emission Levels from Coal - Fired MHD Power Plant



* From Report No. DOE / NASA / 0107-2, dated August 1980.
Numbers based on Ill. #6 Coal with up to 4.5% Sulfur.

The University of Tennessee Space Institute
Tullahoma, Tennessee

## MHD DEVELOPMENT PROGRAM

## COST OF DOE PROOF OF CONCEPT PROGRAM

| FY: | 1988 | 1989 | 1990 | 1991 | 1992 | Total |
|---|---|---|---|---|---|---|
| Budget, Millions of Dollars | 35 | 40.9 | 43 | 40 | 29 | 187.9 |

### FY 1989 Funding Levels

| | $40.9 M | $35 M | Prime Contractor |
|---|---|---|---|
| Topping Cycle | 28 | 22.6 | TRW, California & CDIF, Montana |
| Bottoming Cycle | 11.4 | 11.0 | Babcock & Wilcox, Ohio & CFF, Univ. of Tenn. Space Inst. |
| Seed Recovery/ Regeneration | 0.2 | 0.2 | Babcock & Wilcox, Ohio |
| Retrofit Conceptual Design | 0.4 | 0.4 | Westinghouse, Pennsylvania & MHD Development Corp., Montana (1 contract each) |
| Program Support & HQ Costs | 0.9 | 0.8 | |

Mr. Coates. To get through this as quickly as possible, I would like to call your attention to these illustrations which I left with you.

Senator Reid. We have those.

Mr. Coates. I would like very briefly to go through it.

Electric companies throughout the world produce electrical power by rotating a copper wheel, an armature through a magnetic field. In order to do that, they use coal or nuclear power, oil. In the old days they used piston engines, and since the early part of the century, turbine generators. And then with the advent of the space program, science learned enough to be able to go directly to the gas.

The MHD generator, the gas at a very high temperature, is a conductor of electricity. And when that gas interacts with the magnetic field, it produces electricity and it eliminates all of the other steps, which is one of the reasons why its efficiency is so high.

If you turn to the next page, sir, on the top illustration it shows what an MHD utility plant might look like. Because of its efficiency, an MHD powerplant operates at about 2,500 °F. It produces electric power but has enough energy left over to operate a conventional boiler and a conventional turbine generator.

The application there is that we can take present-day powerplants, upgrade them without having to buy new property, without having to build entirely new plants, so that the advantages of that are quite clear.

With respect to the efficiencies, the next chart shows the efficiency of MHD compared to pressurized fluidized beds and the combined-cycle gas turbine compared to conventional plants. As you can see, the MHD generator achieves 60 percent efficiency, and that would be a developed generator compared to 32 for conventional plants.

The basis for these conclusions were prepared by Westinghouse and General Electric in two separate studies for DOE and NASA.

The next page shows some of the major advantages of MHD. In order to keep the gas temperature at the conductivity needed, potassium salt is added. As a consequence, the potassium acts with the sulfide, and you can remove just about as much of that sulfur as you would like. I will not repeat it; it is all there to be seen.

This program was first—MHD—was first demonstrated in the United States. Fortunately——

Senator Reid. What was that year?

Mr. Coates. It was first demonstrated in the United States in about 1959 or 1960, about the same time as the reentry problem was solved.

Fortunately, in 1983, working with the industry, the Department of Energy came up with what they call a proof-of-concept plan, which is shown on the next schedule.

I am also delighted to be able to report that OMB has also finally, after years, has approved the DOE MHD program plan. This late fall, in order to go forward with the program, the Department let these major contracts. The topping cycle, which is an MHD area. The bottoming cycle, with the gas cleanup. Seed recovery, which allows you to recycle the potassium. And then a conceptual design.

There has been some discussion about maintaining this program at a $35 million level, the level of the current year. You can see from this schedule what will happen. It will force the program to be extended an additional year.

At the present moment it is planned that the industry will cost share 50 percent of the first retrofit program. At present the industry is cost sharing this program through a formula established by the Congress, which called for 20 percent in 1986—10 percent in 1986, 20 percent in 1987, and 5 percent each additional year. So that by the time that we get out there, the industry will be cost sharing approximately 50 percent.

The following page shows the costs. These costs, to the best of our knowledge, very closely parallel the DOE program.

In order to complete this proof of concept program on schedule, it requires $187.9 million, assuming that we maintain this schedule. If we extend it a year, it would cost another $28 million, and the reasons for that are shown in the funding levels described also on that page.

Senator REID. Your time has expired.

If this is as effective as you have indicated, why hasn't it been used more?

Mr. COATES. For the reason that you gave earlier, Mr. Chairman: there is no real energy policy in this country at all.

Interestingly enough, in the mid-1960's, the Soviet Union came to the United States, looked at the MHD generators in Everett, and went back to that country, and today they are in the process of designing a 500-megawatt electric powerplant.

There is also talk of their commercializing that and marketing that throughout the world. I suspect that unless something is done, we will end up buying MHD generators from the Soviet Union.

Senator REID. Thank you very much.

Mr. COATES. Thank you, Mr. Chairman.

## STATEMENT OF LAWRENCE I. WISDOM, EXECUTIVE VICE PRESIDENT, HYDROCARBON RESEARCH, INC.

Senator REID. Lawrence I. Wisdom, HRI, Inc.

Mr. WISDOM. Thank you, Mr. Chairman.

Senator REID. You may proceed.

Mr. WISDOM. Mr. Chairman, members of the subcommittee, I am Lawrence I. Wisdom, executive vice president from Hydrocarbon Research. We appreciate your invitation to testify today on the Department of Energy fossil energy and research budget request.

As you know, HRI has played a key role in the research and development of technologies that convert our domestic energy resources into clean fuels. HRI over the years has been a leader in the field of direct liquefaction of coal. During the late 1970's and early 1980's DOE funded three coal technologies, including HRI's H-coal process. The large-scale 220-ton-a-day plant in Kentucky closed down in 1982 after confirming oil yields of slightly over three barrels per ton of coal.

In 1983 DOE awarded HRI a 2-year followon program to investigate new and novel technologies in the field of direct liquefaction, which was later renewed in 1985. This program focused on an improved process which is based on the close-coupled two-stage liquefaction of coal or, as we call it, the CTSL process.

Without question, with the process, we have had the most exciting technological advances through this process yet made, putting the United States once again ahead of the rest of the world.

During the last 4 years at HRI we have increased oil yields from slightly over three barrels per ton of coal to over five barrels per ton of coal, or a 50-percent increase in liquid yield.

What is more amazing is that the transportation fuels and the quality of the fuels did not suffer. On the contrary, we were able to produce greater quantities of material in the gasoline and diesel range while cutting the sulfur content by 50 percent compared to the results demonstrated during the H-coal era.

Product upgrading studies by Chevron have shown that this can make excellent high-density jet fuels of potential interest to the Air Force.

A recently completed independent study by the MITRE Corp. sponsored by the Department of Energy confirmed that the CTSL process is the lowest cost in the field today. This process is similar in many respects to the only commercial G-stage process operating, at the Texaco Louisiana refinery, to produce and process petroleum residue which was licensed by HRI.

As a result of improvements made under the CTSL program during the last 4 years and the critical feedback we have had through commercial operations on oil and our background in processing coal and oil together, we developed a superior process technology. This technology has been selected by Ohio Ontario Clean Fuels for demonstration in Ohio and funded by DOE under the clean coal technology program in private industry.

The U.S. Government has been able to maintain its technology advantage despite cutbacks. In fact, offshoots are meeting the S-ring challenge for cleanup in acceptable and economic fashion. Whether we will continue in the lead depends on the wise decisions of this subcommittee, others in Congress, the Department of Energy, and the administration.

We have been lucky so far, operating at this reduced level, but much remains to be done. We are at a critical stage now where this technology is ready for scaleup to the demonstration stage. But DOE may lack funds for anything other than additional scale work this year, while its proposed funding for fiscal year 1989 probably would leave nothing at all for this program.

What we actually need to advance this to the PDU stage is funding at $4 million per year over the next 4 years. Halting the program would be a terrible blow to our Nation's fossil energy program. While we have made great strides in the last 4 years, PDU scaleup is required if we are to succeed in reducing investment and operating costs while maintaining high liquid yields at an acceptable quality.

From the process development stage, liquefaction can be scaled up to commercial plant level. At this point the technology will be ready to provide environmentally clean transportation fuels from a strategic domestic resource.

Although the proposed program focused exclusively on the direct liquefaction of coal, important offshoots of this technology have benefited the clean coal program. Without it, we would not have made the breakthrough in the coal-oil processing which offers so much promise.

PREPARED STATEMENT

Further development of this technology is likely to have further payoffs in the clean coal program. Support from Congress will ensure that the United States maintains its position at the leading edge.

Senator REID. Thank you. We appreciate your testimony.

This is my first exposure to this process. It sounds interesting.

Mr. WISDOM. Yes, sir.

Senator REID. Thank you very much.

Mr. WISDOM. Thank you.

[The statement follows:]

## STATEMENT OF LAWRENCE I. WISDOM

MISTER CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE, HYDROCARBON RESEARCH, INC. (HRI) APPRECIATES YOUR INVITATION TO TESTIFY TODAY ON THE DEPARTMENT OF ENERGY'S FOSSIL RESEARCH AND DEVELOPMENT BUDGET REQUEST. AS YOU KNOW, HRI HAS PLAYED A KEY ROLE IN THE RESEARCH AND DEVELOPMENT OF TECHNOLOGIES THAT CONVERT OUR DOMESTIC ENERGY RESOURCES INTO CLEAN FUELS.

HRI OVER THE YEARS HAS BEEN A LEADER IN THE FIELD OF DIRECT LIQUEFACTION OF COAL. DURING THE LATE 70's AND EARLY 80's, THE UNITED STATES DEPARTMENT OF ENERGY FUNDED THE CONSTRUCTION AND OPERATION OF THREE (3) COAL LIQUEFACTION TECHNOLOGIES INCLUDING HRI'S H-COAL® PROCESS. THE LARGE SCALE 220 TPD H-COAL® PILOT PLANT AT CATLETTSBURG, KENTUCKY, CLOSED DOWN IN 1982 AFTER CONFIRMING OIL YIELDS OF 3.3 BARRELS PER TON WHICH HAD BEEN DEMONSTRATED PREVIOUSLY IN HRI'S BENCH AND PROCESS DEVELOPMENT UNITS. THEN IN 1983 DOE AWARDED HRI A TWO YEAR FOLLOW-ON CONTRACT TO PURSUE THE RESEARCH AND DEVELOPMENT OF DIRECT COAL LIQUEFACTION. IN 1985 DOE APPROVED A TWO YEAR FOLLOW-ON TO THAT PROGRAM WHICH HAS BEEN EXTENDED TO THE PRESENT.

THIS PROGRAM FOCUSED ON AN IMPROVED PROCESS WHICH IS BASED ON THE CLOSE-COUPLED TWO-STAGE LIQUEFACTION OF COAL (CTSL) IN EBULLATED-BED REACTORS. THE CTSL PROCESS USES TWO CLOSE-COUPLED CATALYTIC REACTORS AS OPPOSED TO THE THERMAL/CATALYTIC REACTORS USED BY OTHER PROCESSES. THE PRESENCE OF CATALYST IN THE FIRST-STAGE REACTOR IS INTENDED TO PROMOTE THE TRANSFER OF HYDROGEN TO THE REACTING COAL AND STABILIZE THE FIRST-STAGE LIQUEFACTION PRODUCTS, THUS PREVENTING ANY RETROGRADE REACTIONS. THE SECOND-STAGE CATALYTIC REACTOR COMPLETES COAL CONVERSION AND ALSO

PROMOTES CONVERSION OF THE RESIDUUM FRACTION TO DISTILLATE PRODUCTS.

WITHOUT QUESTION, WE HAVE THE MOST EXCITING TECHNOLOGICAL ADVANCE IN DIRECT LIQUEFACTION YET MADE, PUTTING THE UNITED STATES ONCE AGAIN AHEAD OF THE REST OF THE WORLD. DURING THE LAST FOUR YEARS HRI INCREASED OIL YIELDS FROM 3.3 BARRELS PER TON TO OVER 5 BARRELS PER TON OF COAL, OR A 50% OVERALL INCREASE IN LIQUID YIELD. WHAT IS MORE AMAZING IS THAT THE SELECTIVITY TO TRANSPORTATION FUELS AND THE QUALITIES OF THESE FUELS DID NOT SUFFER; ON THE CONTRARY, WE WERE ABLE TO PRODUCE GREATER QUANTITIES OF MATERIAL IN THE GASOLINE AND DIESEL RANGE WHILE CUTTING THE SULFUR AND NITROGEN CONTENT OF THESE FUELS BY 50%, COMPARED TO THE RESULTS DEMONSTRATED DURING THE H-COAL® ERA. PRODUCT UPGRADING STUDIES BY CHEVRON HAVE SHOWN THAT CTSL PRODUCTS CAN MAKE EXCELLENT HIGH DENSITY JET FUELS OF INTEREST TO THE AIR FORCE.

AN INDEPENDENT STUDY BY THE MITRE CORPORATION, AND SPONSORED BY THE DEPARTMENT OF ENERGY, CONFIRMED HRI'S IMPROVED COAL LIQUEFACTION TECHNOLOGY AS THE LOWEST COST IN THE FIELD. A COMPARISON OF THIS PROCESS AGAINST LEADERS IN THE UNITED STATES INDUSTRY IS SHOWN IN FIGURES 1, 2 AND 3. FIGURE 1 SHOWS THE OVERALL TECHNICAL PERFORMANCE SUMMARY FOR THE PROCESSES ON BOTH ILLINOIS NO. 6 COAL AND WYOMING COAL. THE ECONOMIC COMPARISON ON EACH OF THOSE COALS ARE SHOWN RESPECTIVELY IN FIGURES 2 AND 3. MITRE BASED THEIR STUDY ON HRI'S 1983-1985 CTSL PROGRAM. IN THE LAST TWO YEARS WE HAVE CONTINUED TO ADVANCE THE CTSL PROCESS THROUGH FURTHER OPTIMIZATION. AN OVERVIEW OF THESE ACCOMPLISHMENTS IS SHOWN BELOW FOR THE ILLINOIS NO. 6 COAL:

| | H-COAL® PROCESS | THERMAL/CATALYTIC TWO-STAGE LIQUEFACTION | CTSL PROCESS | |
|---|---|---|---|---|
| | | | 1983-85* | 1985-87 |
| **YIELDS, W % M.A.F. COAL** | | | | |
| Gas ($C_1$-$C_3$) | 11 | 8 | 7 | 8 |
| Product ($C_4$-975°F) | 51 | 61 | 67 | 78 |
| Residuum and Unconverted Coal | 27 | 22 | 10 | 5 |
| **LIQUID PRODUCT (BBL/TON M.A.F. COAL)** | **3.3** | **3.9** | **4.1** | **5.0** |
| **PRODUCT QUALITY** | | | | |
| °API | 26 | 25 | 24 | 28 |
| End Point, °F | 975 | 975 | 975 | 750 |
| Nitrogen, W % | 0.49 | 0.34 | 0.33 | 0.25 |
| Sulfur, W % | 0.02 | 0.08 | 0.05 | 0.01 |

*Based on Mitre Study, Run 227-20-15.

THE TWENTY-TWO PERCENT INCREASE IN YIELD AND CORRESPONDING ECONOMIC ENHANCEMENT INCURRED DURING THE LAST TWO YEARS WILL SURELY PLACE THE CTSL TECHNOLOGY AT THE LEADING EDGE OF DIRECT COAL LIQUEFACTION TECHNOLOGIES IN THE WORLD TODAY.

THIS PROCESS IS SIMILAR IN MANY RESPECTS TO THE ONLY COMMERCIAL TWO-STAGE EBULLATED-BED PROCESS OPERATING TODAY AT TEXACO'S CONVENT, LOUISIANA REFINERY TO PROCESS PETROLEUM RESIDUE AND LICENSED BY HRI. AS A RESULT OF IMPROVEMENTS MADE UNDER THE CTSL PROGRAM, CRITICAL FEEDBACK FROM COMMERCIAL OPERATIONS ON UPGRADING PETROLEUM RESIDUUM AND HRI'S BACKGROUND IN PROCESSING COAL AND OIL TOGETHER, HRI WAS ABLE TO DEVELOP A SUPERIOR COAL/OIL CO-PROCESSING TECHNOLOGY. THIS TECHNOLOGY HAS BEEN SELECTED BY OHIO ONTARIO CLEAN FUELS FOR DEMONSTRATION IN WARREN, OHIO, AND FUNDED BY DOE UNDER THE CLEAN COAL TECHNOLOGY PROGRAM AND PRIVATE INDUSTRY.

AS WE CAN SEE, IN DIRECT LIQUEFACTION, AT LEAST, THE UNITED STATES GOVERNMENT HAS BEEN ABLE TO MAINTAIN ITS TECHNOLOGY ADVAN-

TAGE IN THE INTERNATIONAL COMMUNITY IN SPITE OF THE HUGE CUT BACKS IN RESEARCH AND DEVELOPMENT FUNDING IN RECENT YEARS. IN FACT, OFFSHOOTS FROM THE CTSL PROGRAM ARE ALREADY BENEFITTING NEW U.S. TECHNOLOGIES THAT ARE MEETING THE ACID RAIN CHALLENGE FOR CLEANING UP HIGH SULFUR AND NITROGEN FUELS IN AN ACCEPTABLE AND ECONOMIC FASHION. WHETHER THE UNITED STATES WILL CONTINUE IN THE LEAD, HOWEVER, DEPENDS ON THE WISE DECISIONS OF THIS SUBCOMMITTEE, OTHERS IN THE CONGRESS, THE DEPARTMENT OF ENERGY AND THE ADMINISTRATION. WE HAVE BEEN LUCKY SO FAR, OPERATING ON THIS REDUCED LEVEL, BUT MUCH REMAINS TO BE DONE. WE ARE AT A CRITICAL STAGE NOW, WHERE THE CTSL TECHNOLOGY IS READY FOR SCALE-UP TO THE PDU STAGE BUT DOE MAY LACK THE FUNDS FOR ANYTHING MORE THAN ADDITIONAL BENCH-SCALE WORK THIS YEAR, WHILE ITS PROPOSED FUNDING FOR FY 1989 PROBABLY WOULD LEAVE NOTHING AT ALL FOR THIS PROGRAM. WHAT WE ACTUALLY NEED TO ADVANCE THIS TO THE PDU STAGE IS FUNDING AT $4 MILLION PER YEAR OVER THE NEXT FOUR YEARS.

HALTING THE PROGRAM AT THIS POINT WOULD BE A TERRIBLE BLOW TO OUR NATION'S FOSSIL ENERGY PROGRAM. WHILE WE HAVE MADE GREAT STRIDES IN THE LAST FOUR YEARS, PDU SCALE UP IS REQUIRED IF WE ARE GOING TO SUCCEED IN REDUCING INVESTMENT AND OPERATING COST WHILE MAINTAINING HIGH LIQUID YIELDS AT AN ACCEPTABLE QUALITY. FURTHERMORE, COALS FROM ILLINOIS, KENTUCKY, OHIO, PENNSYLVANIA, WEST VIRGINIA, TEXAS AND WYOMING ARE ALL BEING CONSIDERED FOR TESTING. FROM THE PROCESS DEVELOPMENT UNIT (PDU) STAGE, DIRECT COAL LIQUEFACTION CAN BE READILY SCALED UP TO THE COMMERCIAL PLANT LEVEL. AT THIS POINT THE TECHNOLOGY WILL BE READY TO PROVIDE ENVIRONMENTALLY CLEAN TRANSPORTATION AND UTILITY FUELS FROM A STRATEGIC DOMESTIC RESOURCE.

THE CURRENT CTSL PROGRAM WITH THE DEPARTMENT OF ENERGY ENDS THIS MONTH. THE FOLLOW-ON PROGRAM PROPOSED BY HRI WOULD CALL FOR THE INVESTIGATION OF:

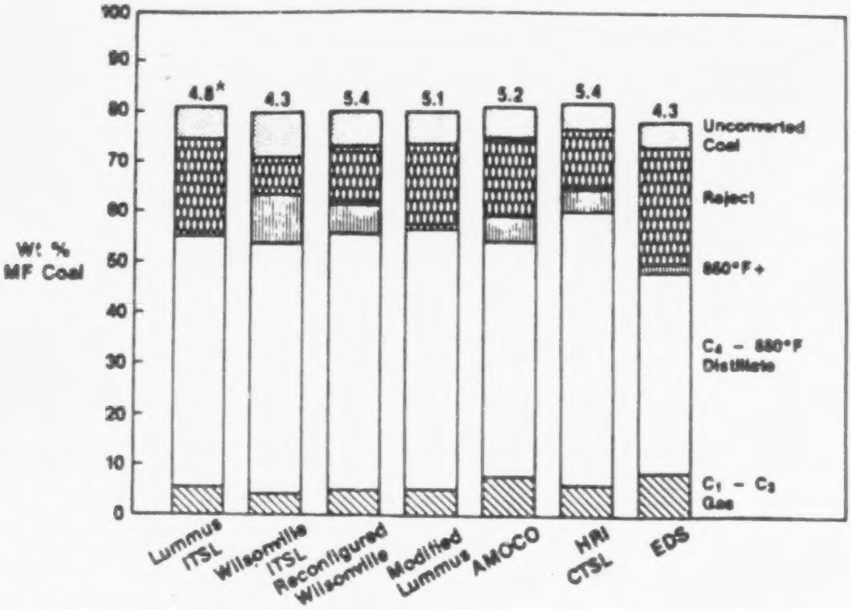
- USE OF HIGH SULFUR COALS.
- EVALUATION OF ALTERNATE LOW RANK COALS.
- ON-LINE PRODUCT UPGRADING.
- INTEGRATION OF AN ASH REJECTION STEP.
- PROCESS IMPROVEMENT AND COST REDUCTION STUDIES.
- DEMONSTRATION AND OPTIMIZATION IN A TWO-STAGE PDU TO DEVELOP A SCALE-UP DATA BASE, CONFIRM OPERABILITY AND EVALUATE FLUID DYNAMIC ISSUES.
- PRODUCING SUFFICIENT QUANTITIES OF CLEAN DISTILLATE FUELS FOR TESTING BY THE DEPARTMENT OF DEFENSE AND OTHERS.

ALTHOUGH THE PROPOSED PROGRAM FOCUSES EXCLUSIVELY ON THE DIRECT LIQUEFACTION OF COAL, IMPORTANT OFFSHOOTS OF THIS TECHNOLOGY HAVE BENEFITED THE CLEAN COAL PROGRAM. WITHOUT IT WE WOULD NOT HAVE MADE THE BREAKTHROUGH IN COAL/OIL CO-PROCESSING, WHICH OFFERS SO MUCH PROMISE. FURTHER DEVELOPMENT OF THIS TECHNOLOGY IS LIKELY TO HAVE FURTHER PAYOFFS IN THE CLEAN COAL PROGRAM. SUPPORT FROM CONGRESS FOR THIS PROGRAM WILL ENSURE THAT THE UNITED STATES MAINTAINS ITS POSITION AT THE LEADING EDGE IN DIRECT LIQUEFACTION.

THANK YOU

## FIGURE 1: TECHNICAL PERFORMANCE SUMMARY

### ILLINOIS NO. 6 COAL



*These numbers are hydrogen consumption in wt. percent MF Coal.

### WYOMING COAL

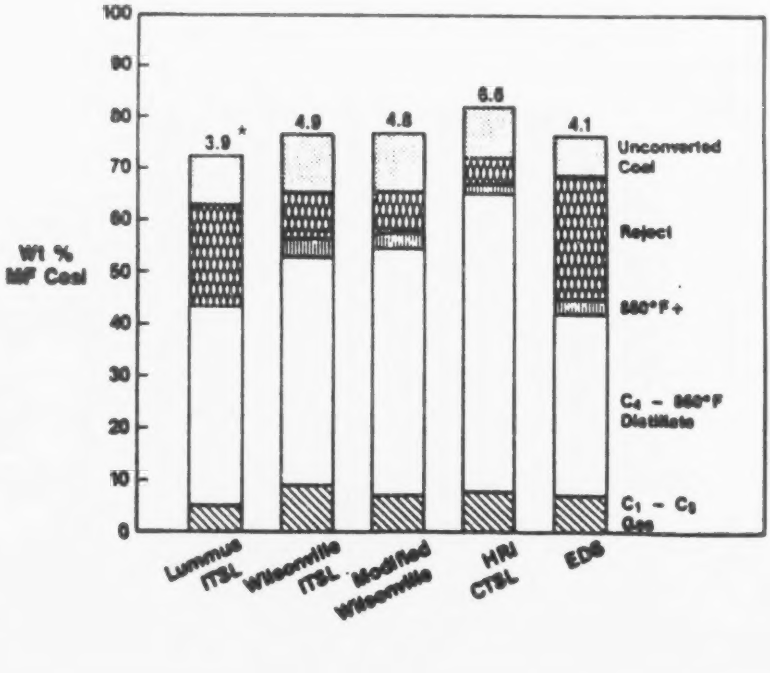


FIGURE 2

## Economic Comparisons of Illinois No. 6 Coal Plants

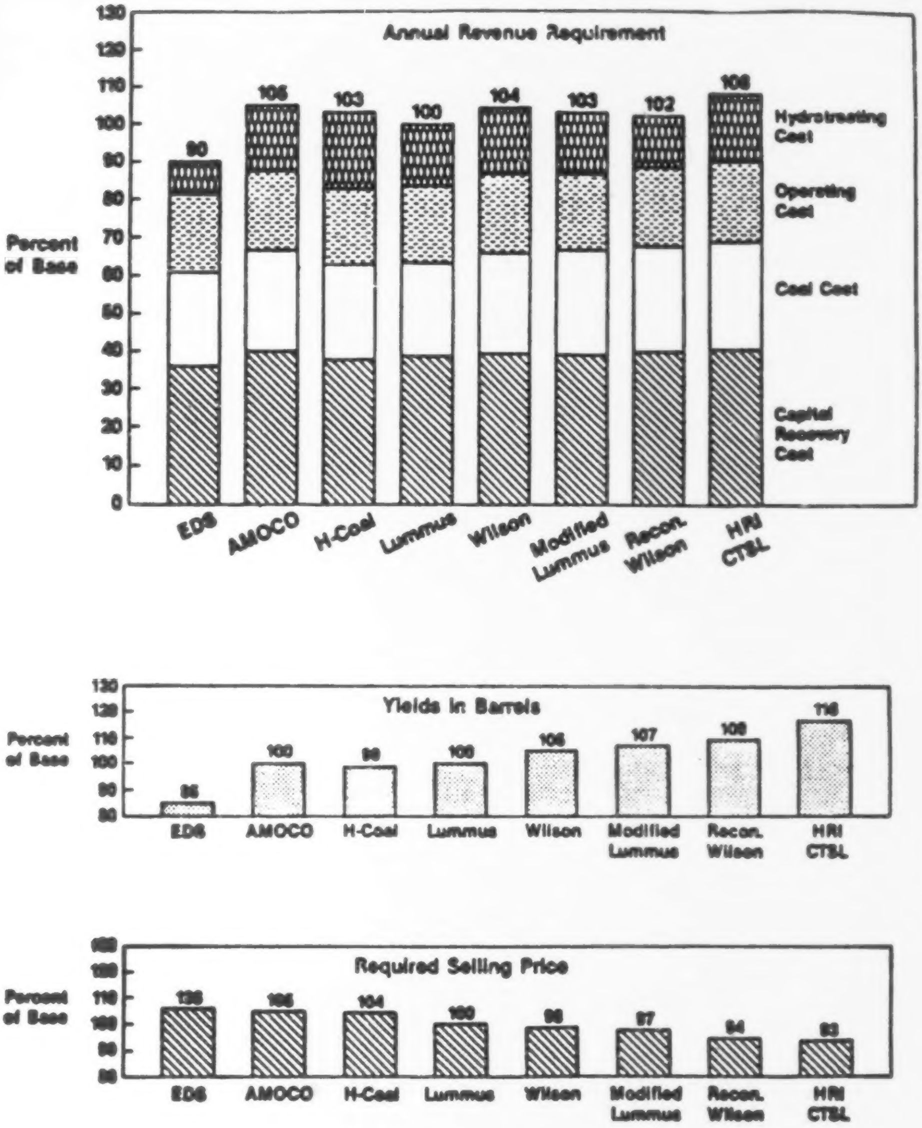
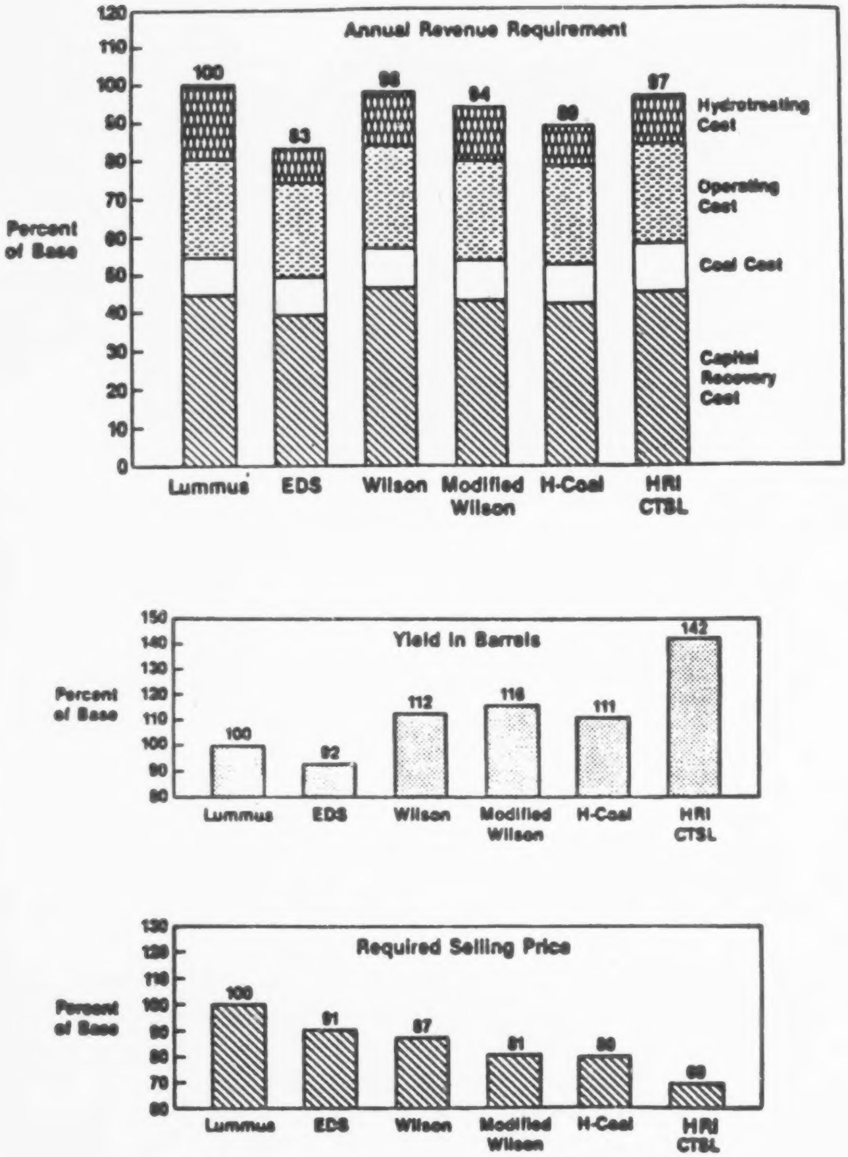


FIGURE 3

## Economic Comparisons of Wyoming Coal Plants



## STATEMENT OF BEN YAMAGATA, EXECUTIVE DIRECTOR, CLEAN COAL TECHNOLOGY COALITION

Senator REID. We will now hear from the Clean Coal Technology Coalition. The testimony will be by Ben Yamagata.

You may proceed.

Mr. YAMAGATA. Mr. Chairman, I appreciate the opportunity to testify before the subcommittee this morning. My name is Ben Yamagata. I am the executive director of the Clean Coal Technology Coalition. On behalf of our more than 70 members I want to thank you for this opportunity.

The coalition was organized for the specific purpose of ensuring the accelerated development and demonstration of clean coal technologies. Our members include: utilities; coal companies, both high- and low-sulfur producers; equipment suppliers; construction companies; State governments; universities, the Edison Electric Institute; the National Coal Association, and the United Mine Workers of America.

I want to take his opportunity to thank the majority leader Senator Byrd, who is our Nation's foremost spokesman for clean coal technology development. I also want to thank you and other members of this subcommittee, Mr. Chairman, for your continued strong support for this important program.

I appear here in support of the President's request for advance appropriations for fiscal year 1990 through 1992, with some important caveats regarding the timing of when funds might be made available and the scope and direction of this program. Once we know the nature and extent of industry's participation in the current program opportunity notice, we should have a better indication of industry's ability to efficiently utilize the recommended funding in the timeframe proposed by the President.

By late May, all the proposals under the current solicitation will have been submitted. At that time, Congress will have a better reading of the developmental status of these technologies and of the private sector's ability to fund large-scale demonstrations.

I also want to urge strong consideration by the Congress for S. 879, Senator Byrd's Clean Coal Technology Deployment Act, which is currently pending in the Senate Energy Committee.

My written statement briefly addresses five major issues. In this presentation this morning I would like to focus on three of those points.

First, this committee has been instrumental in assuring that the clean coal program remains available to all emerging clean coal technologies.

Second, and as important, this committee has been instrumental in assuring that all ranks and types of coal, whether high or low sulfur, whether mined in the East or West, are also available to this program. This broad scope for the program is important because coal still remains our most abundant domestic resource and, therefore, this program should be applicable to our entire coal resource base.

Further, these technologies will help in making our use of coal more environmentally acceptable.

Finally, and as important, we will need new capacity before the turn of the century, and new clean coal technologies promise ratepayer savings of 10 to 20 percent over current technologies and, if applied to existing facilities for purposes of emission control, might provide as much as 30 percent cost savings.

Second, this committee, as you did in last year's committee report, is urged to direct the Department to ensure that funds are used to mature clean coal technologies once demonstrated. We call this phase of technology development the deployment phase. In reality it is simply additional demonstrations of the same or similar technologies and deployment is intended merely to address the range of design fuel supplier and operating variables faced by the users of coal.

Most important, this deployment process should bring down costs even as we acquire greater learning ability as to what the technologies can do. Also, this process will increase the reliability of the technology. Reliability is the critical element for utilities.

Finally, we have previously testified that enactment of acid rain control legislation, that currently pending in the U.S. Senate, will in all likelihood prevent the development of clean coal technologies. Stringent time requirements and massive tonnage reductions will cause coal users to choose that which is already proven: scrubbers or switching of fuel supplies.

Such a course of action for the Nation, we submit, would be unwise when instead, through use of new technologies, we can ensure a cleaner environment while using abundant supplies of coal and at the same time provide more competitively priced electricity to the Nation's ratepayers.

### PREPARED STATEMENT

Thank you for the opportunity to testify, Mr. Chairman.

Senator REID. Thank you very much for your testimony.

[The statement follows:]

## STATEMENT OF BEN YAMAGATA

Mr. Chairman, on behalf of The Clean Coal Technology Coalition, I want to express our appreciation for the opportunity to testify before the Interior Appropriations Subcommittee. Majority Leader Byrd, Chairman of this Subcommittee, has been the nation's foremost spokesman for advancing the accelerated development of clean coal technologies. Also, on behalf of the Coalition's membership, I wish to thank the other Members of this Subcommittee for continued strong support of this program. Success in demonstrating and deploying clean coal technologies can provide significant benefits for our environment, competitive or lowered rates for our Nation's ratepayers, and continued use of all coals, high and low sulfur, whether mined in the East or the West.

The Clean Coal Technology Coalition was organized in the Spring of 1985, for the specific purpose of encouraging the implementation of the clean coal program and the accelerated development of promising clean coal technologies. A Coalition membership listing is attached to my statement.

This statement will address five principal issues.

First: The focus of the clean coal technology development program should be to encourage all promising technologies, not only so-called retrofit and repowering technologies, but also technologies for new, "greenfield" applications as well as industrial and transportation applications. This Committee is to be commended for fending off prior attempts to narrow the scope of the program.

More specifically, some in the Congress and others interested in the program have previously urged that all funds should be directed toward retrofit technologies that might, if successful, assist in achieving near-term emission reductions. We, too, support the accelerated development of retrofit technologies that will provide additional options by which industry might cost-effectively reduce emissions. However, we also urge the Congress to continue to support technologies that can be applied to repowering and new facilities. These technologies are vitally important to our future ability to cost-effectively generate electricity or energy while at the same time effectively controlling emissions.

Various government reports and industry projections suggest that by the end of the 1990's, the nation may require as much as 100,000 megawatts of additional capacity not under construction or currently planned. Clean coal technologies, applied in new powerplants, are likely to provide electricity at costs to the consumer of 10-to-20 per cent less than conventional pulverized coal technology with scrubbers while controlling very high percentages of sulfur -- and in some cases nitrogen oxide emissions. In addition, technologies for repowering applications might be thirty percent less costly than conventional technologies. More importantly, these technologies for existing facilities could extend plant life, permit continued use of an existing plant site, and thereby avoid premature retirements or replacement with other fuels. Also, some of these technologies can be constructed in modules or factory fabricated thus better matching capacity to actual demand.

Second: We would urge the Congress to ensure that clean coal incentives are made available for the deployment of clean coal technologies. Concerns over initiating a deployment program -- and not simply limiting the program to the demonstration of various technologies as they emerge from the laboratory -- may be the consequence of a lack of uniform agreement about what is meant by "deployment." The Coalition believes that multiple, full-scale commercial clean coal projects, of the same or similar technology, should be encouraged. These projects can be classified as additional demonstrations that are intended to address the range of design, fuel, supplier and operating variables faced by the user. We refer to this stage of technology development as "deployment." Accomplishment of such a deployment program would assure "hands on" experience with the technology and would bring down the cost of early commercial-sized units, making the technology available sooner as a commercial option for industry.

In the utility industry, it is especially important that a technology be proven reliable in commercial application. To achieve this goal it will be necessary to demonstrate that a technology is technically feasible; that the technology is economically viable; and, that capable and qualified equipment suppliers are available to warrant or guarantee reliable operation of the technology so as to meet the exacting standards of the utility industry and the scrutiny of utility regulators. The amount of funding made available in the current solicitation ($536 million) suggests that replications of certain technologies, under different and real-world operating conditions, will be possible. We would also note that the Administration's request for an additional $1.775 billion, if appropriated, would clearly provide the opportunity to fund multiple, full-scale commercial deployment projects of the same or similar technologies. We urge such funding and Congressional direction of the program.

Third: With regard to DOE administration of the clean coal program, we are generally pleased with the final program opportunity notice (PON) issued on February 22. Many Coalition questions about program direction and requirements were addressed in the final PON, and we received further clarification at the Department's conference in mid-March and in the recent amendments to the PON. We remain concerned, however, about the DOE's requirements for repayment. Our concerns are well documented with the DOE as well as our support of repayment as a requirement of the program. The Department's amendment to the PON, issued in late April, which amended the repayment section, will give industry an opportunity to submit a repayment plan which can be negotiated between the DOE and the proposer after projects have been selected. We are hopeful that the ability of selected project proposers to negotiate the scope and terms of repayment constitutes a significant enough change so that the Department's modified terms for repayment will not dissuade parties from proposing.

With repsect to program adminstration the Coalition also would like to continue to stress the need for the DOE to demonstrate a diversity of clean coal technologies. Given the level of funding available, the second solicitation represents an opportunity to demonstrate technologies that were not chosen under the first solicitation as well as embark upon the previously described deployment program.

Fourth: The Clean Coal Technology Coalition supports a multi-year clean coal technology demonstration/deployment program like the one called for in Senator Byrd's deployment bill, S. 879. We also strongly support the President's request for advance appropriations for fiscal year 1990 - 1992, with the caveat that the timeframe in which the funding is to be made available is very important as well as clarification regarding deployment of technologies. Once we know the nature and the extent of industry's proposed participation in the current PON, we should have a better indication of industry's ability to efficiently utilize the recommended funding in the timeframe proposed by the President. By late May, all proposals under the current solicitation will have been submitted. At that time, Congress will have a better reading on the developmental status of these technologies and of the private sector's ability to fund large-scale demonstrations.

Finally, it is important to reiterate the Coalition's position that acid rain control legislation and successful development of emerging clean coal technologies are incompatible. Passage of acid rain legislation can only stymie the development of these technologies because stringent emission control legislation will siphon funds away from clean coal technology development as industry is forced to utilize options that are "tried and true," even if they are more expensive and perhaps less efficient.

## STATEMENT OF PHYLLIS PORTER, WEST VIRGINIA LEGISLATIVE COMMITTEE ON BEHALF OF AMERICAN ASSOCIATION OF RETIRED PERSONS

Senator REID. We will next hear from Mrs. Phyllis Porter, West Virginia AARP.

Ms. PORTER. Good morning, Mr. Chairman. I am Phyllis Porter, and I am a member of the West Virginia State Legislative Committee.

Senator REID. Do you have your statement? The clerk would like a copy of your statement. Do you have an extra one?

Ms. PORTER. It is being furnished.

Senator REID. Thank you.

Ms. PORTER. I thank you for this opportunity to testify on appropriations for the Department of Energy's weatherization assistance program. This program is currently funded at $161 million. AARP supports fiscal year 1989 funding at no less than that level.

It is very important that the current momentum of our weatherization efforts not be disrupted by short-sighted reductions in the weatherization assistance program. Continued funding of this program is especially important in light of the recent and proposed reductions in the low-income home energy assistance program.

Although the cost of energy is no longer front-page news, it is an issue of great importance to low-income households. These people spend about four times as much of their income on home energy as does the general population. Many older people, particularly those with low incomes, live in old, poorly insulated dwellings that require repair or rehabilitation. These dwellings use energy less efficiently than do units that are properly insulated and in good repair.

But their occupants often cannot afford to make the improvements. And I understand that many of the older people stay in their beds under the covers not because they are ill but because it is one way they have of keeping warm.

The weatherization assistance program has made a crucial difference in many of the older households in lowering energy cost burdens. Weatherization has been shown to reduce home energy expenditures by about 13 percent. And when combined with low-income home energy assistance, the cost burden has been reduced by an average of 36 percent.

Federal support for weatherization efforts at the State and local level has achieved impressive results, and since large oil overcharge fees have been available to the States, spending for this activity has been accelerated.

In 1986 a study showed States were spending approximately $500 million a year on weatherization from all sources, a rate estimated to assist some 500,000 units a year. Recent surveys conducted by the National Consumer Law Center indicate that some $470 million in additional oil overcharge funds have been allocated by the States for weatherization over a 5-year period.

Attached to our testimony for your information is a report by the National Consumer Law Center, prepared, in part, for AARP State legislative volunteers, summarizing on a State-by-State basis the uses made of these funds. The weatherization assistance program is crucial to sustaining the Nation's current weatherization effort.

In addition to providing a major share of all weatherization resources available, it provides the administrative structure and delivery mechanism for other revenue sources. Some trends in crude oil prices will benefit some low-income energy users.

However, Department of Energy price projections for the next decade suggest that energy costs for low-income households will not decrease much below the current levels. This leaves a very large number of low-income households who are spending too high a proportion of their incomes on energy. Continued funding of the weatherization assistance program is essential to help reduce this cost burden.

I would like to commend you, Mr. Chairman, for your continuing concern and support you have demonstrated in providing resources for this program. AARP recognizes that high sustained deficits place tremendous pressure on Congress, and that is why we are only calling for maintenance of current spending levels for the program.

### PREPARED STATEMENT

We urge the subcommittee to continue its strong tradition of support for the low-income weatherization project. Thank you.

[The statement follows:]

## STATEMENT OF PHYLLIS PORTER

On behalf of AARP, a membership organization of 27 million older persons, thank you for this opportunity to testify on appropriations for the Department of Energy's Weatherization Assistance Program (WAP). This program is currently funded at $161 million.

The Association commends you, Mr. Chairman, for the continuing concern and support you have demonstrated in providing resources for the WAP. Older persons live in almost one third of the dwellings weatherized by this program. AARP believes the WAP is an essential part of our national energy policy because it links short term assistance with the long-term benefits of conservation.

AARP supports FY 1989 funding of the WAP at no less than the current level. It is very important that the current momentum of our weatherization efforts not be disrupted by short-sighted reductions in the WAP. Continued funding of the WAP is especially important in light of recent and proposed reductions in the Low-Income Home Energy Assistance Program (LIHEAP).

Although the cost of energy is no longer front page news, it is an issue of great importance to low-income older households. A 1984 study by the National Consumer Law Center found that home energy costs during the coldest winter months consumed more than 30% of an elderly SSI recipient's benefits. In 35 states (including the District of Columbia) an SSI recipient was left with less than $50 a week for other living expenses after paying energy bills. AARP is helping to support an update of this study to be completed this year.

Low-income families eligible for energy assistance spend an average of 15 percent of their income on residential energy (20 to 30 percent in colder parts of the country) compared to about 4 percent for the general population. The proportion of income devoted by low income households to residential energy use increased 36 percent between 1978 and 1986.

Many older people, particularly those with low incomes, live in old, poorly insulated dwellings that require repair or rehabilitation. Some 40 percent of all older Americans occupy housing built before 1940. These dwellings use energy less efficiently than do units that are properly insulated and in good repair, but their occupants often cannot afford to make improvements.

The WAP has made a crucial difference for many of these older households in lowering energy costs burdens. A June, 1986 study by the National Association for State Community Services Programs (NASCP) indicated that weatherization efforts have reduced home energy expenditures by about 13 percent for households receiving the service. When combined with LIHEAP assistance, the home energy cost burden has been reduced by an average of 36 percent.

While there are still great unmet needs for weatherization assistance (especially in the area of rental housing), federal support for weatherization efforts at the state and local level has achieved impressive results. Some 1.125 million single family homes were weatherized between 1982 and 1985 (out of the estimated 3.9 million eligible). At the time the NASCP study was done, states were spending approximately $500 million a year on weatherization from all sources, a rate at which NASCP estimates some 500,000 units a year could be weatherized. Recent surveys conducted by the National Consumer Law Center (NCLC) indicate that some $470 million in additional, oil overcharge funds have been allocated for by the states for weatherization over a 5 year period, allowing for a significant expansion of these activities. We have attached for your information a report prepared by NCLC in part for AARP's state legislative volunteers summarizing the status of state-by-state expenditures of these funds.

The WAP is crucial to sustaining the nation's current weatherization effort. In addition to providing a major share of all weatherization resources available, WAP provides the administrative structure and delivery mechanism for other revenue sources. Fifty-eight percent of the approximately $200 million available from LIHEAP for weatherization has been used under DOE regulations, and the balance of LIHEAP-funded activities have been similar to those permitted by DOE.

Recent trends in crude oil prices will benefit some low income energy users, particularly those who use home heating oil. However, DOE price projections for the next decade suggest that energy costs for low income households will not decrease much below current levels. This leaves a very large number of low-income households who are spending too high a proportion of their incomes on energy. Continued funding of the WAP can help reduce this cost burden.

Once again, the Association thanks you for your past support of the WAP. AARP recognizes that high, sustained deficits place tremendous pressure on Congress. That is why we are only calling for maintenance of current spending levels for WAP.

To reduce this program further, however, would jeopardize the great progress that has been made in weatherizing the homes of low-income families and reducing their energy cost burdens. We urge the Subcommittee to continue its strong tradition of support for the low-income weatherization program.

Senator REID. I appreciate your testimony.

We all know about the savings of energy costs as a result of this weatherization, in addition to making people more comfortable by being warm, or cool, whatever the case might be, because in the area I come from we have sometimes the opposite problem.

But in addition to that, one of the things we don't hear much about is the fact that the weatherization program provides jobs for a lot of people, and that is also a side benefit.

So, we appreciate your testimony here today.

Ms. PORTER. In connection with the jobs, I might mention that up in my area of Martinsburg, WV, I spoke to the weatherization person, and he said that he spreads it out over a 12-month period to maintain employment for his employees.

Senator REID. That's good. A great program. Thank you very much.

Ms. PORTER. Thank you.

## STATEMENT OF WESLEY H. LONG, ON BEHALF OF NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Senator REID. We will now hear from Wesley H. Long, on behalf of National Association of Regulatory Utility Commissioners.

Mr. Long.

Mr. LONG. Mr. Chairman, members of the subcommittee, my name is Wesley Long. I serve as a commissioner on the Public Service Commission of the District of Columbia, and I am testifying today on behalf of NARUC.

We are convinced that the public interest is best served when it takes in the broad spectrum of options available for serving consumers' energy needs. Thus, I appear before you today representing 1 of 27 national organizations supporting the alternative conservation budget for fiscal year 1989.

Due, in part, to the wise investments made by the Federal Government over the past 15 years, energy efficiency has become the fastest-growing source for meeting future energy needs in the United States, and the most economical.

Unfortunately, our Nation's continued progress toward improving energy efficiency is now threatened by a short-sighted administration proposal to cut Federal funding for energy conservation in fiscal year 1989 to barely one-fourth of the current fiscal year's levels—even though these programs have already been cut to the bone.

Investing Federal funds in energy conservation allows low-income citizens to weatherstrip and insulate their homes with the help of the Federal weatherization assistance program. The resulting savings is repeated year after year. It reduces their need for other assistance programs.

Another Federal program offers badly needed assistance to local schools and hospitals. According to the American Council for an Energy Efficient Economy, a $5 million R&D expenditure on energy-efficient lighting and windows accelerated the development of these technologies by 5 years. These new technologies will ultimately save consumers $36 billion that would have been spent on energy bills had this R&D program not existed—a return of 7,000 to 1.

Indeed, the energy-saving investments we have made since the Arab oil embargo 15 years ago are saving our country $130 billion a year in energy bills, according to ACEEE. Given the enormous contributions energy efficiency improvements make to our Nation's economy, I find it astonishing that even before the cuts proposed by the administration, less than 3 percent of DOE's budget is spent on energy conservation.

To look at it another way, for every $1,000 our Nation spends on energy, the Government invests only 42 cents in R&D to explore ways to use energy more efficiently. When we consider the potential payoffs from energy efficiency improvements, we could easily justify spending 10 times that much on energy conservation R&D. Yet, the administration wants to cut that figure even further, to just 23 cents.

Because of the vital importance of adequate Federal support for energy conservation programs, NARUC has joined with 27 other national organizations in proposing an alternative budget for energy conservation for fiscal year 1989. Our proposal recommends Federal expenditures of $439 million on energy conservation programs, about 19 percent above fiscal year 1988 levels.

This alternative budget for energy conservation represents a modest proposal for restoring balance in the Federal energy budget. We view it as a first step toward substantially higher levels of funding for energy conservation which are justified by social and economic policy.

Our proposed fiscal year 1989 budget for energy conservation R&D, totaling approximately $192 million, includes proposals for a number of promising new R&D initiatives in energy efficiency. These include R&D on factorymade housing, desiccant cooling research, and commercial retrofits, using Federal buildings as test facilities.

Our proposed budget also recommends modification or elimination of some existing R&D programs in order to keep this program lean and cost effective. Further details on the proposed alternative budget will be provided by the witness from the Energy Conservation Coalition.

Within DOE's R&D budget, NARUC is especially concerned about maintaining funding for DOE's least-cost utility planning [LCUP] program at the $2 million level. This innovative technical transfer program assists utilities and regulators in developing new institutional frameworks for incorporating energy conservation potentials in the utility planning process. The program helps to bring new energy conservation technologies into millions of homes, businesses, and public buildings across the country.

We also urge the Congress to remove the restrictions which earmark more than one-third of DOE's LCUP funds for rural utilities in the Northeast. We believe that all parts of the Nation should have an equal opportunity to participate in the LCUP program.

In creating innovative programs such as LCUP, Congress has recognized that in a society where there are many institutional barriers to saving energy, hardware alone does not deliver energy savings.

The LCUP program is designed to help utilities and regulators correct some of the market failures which make it easier to waste energy than to save it. With assistance from DOE's least-cost planning program, utility regulators in more than one-half the States are implementing utility planning procedures which consider energy conservation on an equal basis with energy supply options.

For example, the D.C. Public Service Commission has recently adopted least-cost planning and has ordered its electric and gas utilities to undertake aggressive energy conservation programs. Initial conservation programs will explore savings potential in lighting, cooling, and gas heating. Much of the energy savings we expect to achieve through these programs is possible because of the pioneering research conducted by organizations such as the Lawrence Berkeley Laboratory, through funding provided by DOE.

As our conservation efforts in the District of Columbia move forward in the coming years, we will continue to monitor the exciting and promising Federal R&D projects which are currently underway. Through out least-cost planning process, we will endeavor to quickly translate new energy savings opportunities into lower energy costs for all D.C. consumers, including our largest customer, the Federal Government.

Unfortunately, the effectiveness of Federal energy conservation programs has already been compromised by the enormous cuts these programs have suffered since 1981. The additional 74 percent cut proposed by the administration for fiscal year 1989 would effectively dismantle these Federal programs altogether.

We urge Congress instead to begin the process of restoring the balance in the Federal budget. Perhaps Congress should apply its own least-cost test and allocate funds to the energy technologies which promise to meet consumers' energy needs at the lowest cost. Under such a scheme, I am confident that energy conservation would command a much larger share of the DOE budget.

Energy conservation is by far the lowest-cost means of meeting our Nation's future energy needs. The Federal Government's energy conservation programs have an impressive track record for delivering energy savings opportunities which benefit our entire community. NARUC urges the Congress to adopt the programs and funding levels for energy conservation which we have proposed in the alternative budget for energy conservation for fiscal year 1989.

## PREPARED STATEMENT

I would like to thank the subcommittee for allowing me the opportunity to testify before you today.

[The statement follows:]

## STATEMENT OF WESLEY H. LONG

My name is Wesley H. Long. I serve as Commissioner on the Public Service Commission of the District of Columbia and I am testifying today on behalf of the National Association of Regulatory Utility Commissioners (NARUC).

As you may know, the NARUC is a non-profit, quasi-governmental Association founded in 1889, whose members are the state commissions responsible for the regulation of our nation's utilities and carriers. In this capacity, we are responsible for ensuring that consumers of electricity and natural gas nationwide are provided with highest quality, lowest cost utility service possible.

Based upon our experience in this regard we have become convinced that the public interest is best served when energy planning takes into consideration the broad spectrum of options available for serving consumers' energy needs. It is with this in mind that I appear before you today in support of the Alternative Conservation Budget for FY 1989. Three Resolutions setting forth the official position of our Association on energy conservation and least-cost planning are attached hereto as Appendix A.

Those of us who regulate utilities at the state level have a vital interest in the federal government's funding of energy conservation programs. These federal programs have helped millions of consumers to minimize their utility bills and have spurred the development of many new energy-saving technologies by U.S. industries. Due in part to the wise investments made by the federal government over the past 15 years, energy efficiency has become the fastest growing source for meeting future energy needs in the U.S. economy, and the most economical.

Unfortunately, our nation's continued progress toward improving energy efficiency is now threatened. It is threatened by a short-sighted proposal by the Administration to cut federal funding for energy conservation in FY 1989 to barely one-fourth of the current fiscal year's levels -- even though these programs have already been cut to the bone.

It would be difficult to find a better place to invest federal funds than in energy conservation. When low-income citizens weatherstrip and insulate their homes with the help of the federal Weatherization Assistance Program (WAP), for instance, the resulting savings is repeated year after year, and it reduces their need for other assistance programs. Another federal program offers badly needed conservation assistance to local schools and hospitals.

Similarly, federally funded research and development has enabled U.S. industries to develop numerous energy-saving innovations which are cutting energy costs across the country by billions of dollars. Let me offer just one example of the impressive track record of federal expenditures on energy conservation R&D: According to the American Council for an Energy-Efficient Economy (ACEEE), a $5-million R&D expenditure on energy-efficient lighting and windows accelerated the development of these technologies by five years. These new technologies will ultimately save consumers $36 billion that they would have spent on energy bills had this R&D program not existed -- a return of 7000 to 1.

Indeed, the energy-saving investments we have made since the Arab Oil Embargo 15 years ago are saving our country $130 billion a year in energy bills, according to ACEEE. Given the enormous contributions energy efficiency improvements make to our nation's economy, I find it astonishing that even before the cuts proposed by the Administration, less than 3 percent of DOE's budget is spent on energy conservation.

To look at it another way, for every $1000 our nation spends on energy, the government invests only 42 cents in R&D to explore ways to use energy more efficiently. When we consider the potential economic payoffs from energy efficiency improvements, we could easily justify spending ten times that much on energy conservation R&D. Yet the Administration wants to cut that figure even further, to just 23 cents.

Because of the the vital importance of adequate federal support for energy conservation programs, NARUC has joined with 27 other national organizations in proposing an Alternative Budget for Energy Conservation for FY 1989. Our proposal recommends federal expenditures of $439 million on energy conservation programs, about 19 percent above FY 1988 levels.

This alternative budget for energy conservation represents a modest proposal for restoring balance in in the federal energy budget. We view it as a first step toward substantially higher levels of funding for energy conservation which are justified by sound energy and economic policy.

Our proposed FY 1989 budget for energy conservation R&D, totaling approximately $192 million, includes proposals for a number of promising new R&D initiatives in energy efficiency. These include R&D on factory-made housing, desiccant cooling research, and commercial retrofits (using federal buildings as test facilities). Our proposed budget also recommends modification or elimination of some existing R&D programs in order to keep this program lean and cost-effective. Further details on the proposed alternative budget will be provided by the witness from the Energy Conservation Coalition.

Within DOE's R&D budget, NARUC is especially concerned about maintaining funding for DOE's Least-Cost Utility Planning (LCUP) program at the $2-million level. This innovative "technical transfer" program assists utilities and regulators in developing new institutional frameworks for incorporating energy conservation potentials in the utility planning process. The program helps to bring new energy conservation technologies into millions of homes, businesses and public buildings across the country.

We also urge the Congress to remove the restrictions which earmark more than one-third of DOE's LCUP funds for rural utilities in the Northeast. We believe that all parts of the nation should have an equal opportunity to participate in the LCUP program.

In creating innovative programs such as LCUP, Congress has recognized that in a society where there are many institutional barriers to saving energy, hardware alone does not deliver energy savings. The LCUP program is designed to help utilities and regulators to correct some of the market failures which make it easier to waste energy than to save it. With assistance from DOE's least-cost planning program, utility regulators in more than half the states are implementing utility planning procedures which consider energy conservation on an equal basis with energy supply options.

For example, the D.C. Public Service Commission has recently adopted least-cost planning and has ordered its electric and gas utilities to undertake agressive energy conservation programs. Initial conservation programs will explore savings potential in lighting, cooling and gas heating. Much of the energy savings we expect to achieve through these programs is possible because of the pioneering research conducted by organizations such as the Lawrence Berkeley Laboratory, through funding provided by DOE.

As our conservation efforts in the District of Columbia move forward in the coming years, we will continue to monitor the exciting and promising federal R&D projects which are currently underway. Through our least-cost planning process, we will endeavor to quickly translate new energy savings opportunities into lower energy costs for all D.C. consumers, including our largest consumer, the federal government.

Unfortunately, the effectiveness of federal energy conservation programs has already been compromised by the enormous cuts these programs have suffered since 1981. The additional 74-percent cut proposed by the Administration for FY 1989 would effectively dismantle these federal programs altogether. We urge Congress instead to begin the process of restoring the balance in the federal budget. Perhaps Congress should apply its own least-cost test and allocate funds to the energy technologies which promise to meet consumers' energy needs at the lowest cost. Under such a scheme, I am confident that energy conservation would command a much larger share of the DOE budget.

Energy conservation is by far the lowest cost means of meeting our nation's future energy needs. The federal government's energy conservation programs have an impressive track record for delivering energy saving opportunities which benefit our entire country. NARUC urges the Congress to adopt the programs and funding levels for energy conservation which we have proposed in the Alternative Budget for Energy Conservation for FY 1989.

I would like to thank the Subcommittee for allowing me the opportunity to testify before you today.

Convention Resolution No. 5

## Resolution Supporting the Adoption of National Energy Goals

**WHEREAS,** There are national imperatives which require renewed vigor in the development and implementation of national energy policy; and

**WHEREAS,** The Nation continues to be dependent upon petroleum and other non-renewable resources as energy sources; and

**WHEREAS,** Existing national and international energy policies and conditions do not preclude the recurrence of serious problems arising from this dependence; and

**WHEREAS,** The increase in energy prices has a major adverse impact on the Nation's citizens and its economy; and

**WHEREAS,** Conventional sources of energy are subject to constraints involving supply, transportation, cost, environmental, health and safety considerations; and

**WHEREAS,** The Nation must devise strategies by which to address these problems including, but not limited to strategies to assure adequate, efficient, reliable energy supply and to avoid unnecessary and wasteful consumption; and

**WHEREAS,** Cost effective energy conservation measures can address such issues appropriately; now, therefore, be it

**RESOLVED,** That the National Association of Regulatory Utility Commissioners, assembled in its Ninety-sixth Annual Convention in Los Angeles, California, adopts the following goals and urges the government of the United States to find it in the interest of the nation to:

I. Assure adequate and reliable energy supply by using resources in the most efficient manner, by replacing energy resources vulnerable to interruption due to circumstances beyond the nation's control with those less vulnerable, and by encouraging the development and utilization of renewable resources;

II. Define conservation in terms of both avoidance of unnecessary and wasteful consumption and in terms of economic efficiency;

III. Promote conservation by encouraging consultative participation of states, local governments, consumers, energy companies, and the public at large in developing, implementing and updating plans and programs related to energy resource conservation and development;

IV. Improve utility conservation programs by raising consumer awareness to the benefits of conservation, by increasing consumer participation and by requiring utilities to develop programs to achieve implementation of audit recommendations;

V. Encourage development of least cost system plans for major gas and electric utilities in order to meet energy needs over the coming decades, which plans shall include the following: (1) conservation, (2) renewable resources, (3) use of waste heat or high fuel conversion efficiency and (4) all other resources;

VI. Concentrate additional federal efforts on strengthening the Department of Energy's ability to gather data, provide coordination and provide assistance to states and the public; on establishing national appliance efficiency standards; on requiring increased thermal efficiency in buildings; and on establishing energy efficiency in transportation; and

VII. Provide for the essential energy needs of the disadvantaged by providing utility incentives for the development of conservation and audit services, by providing increased permanent weatherization services for low income households, and by eliminating financial barriers to conservation improvements for the needy through loan or grant programs.

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Sponsored by the Ad Hoc Committee on Energy Conservation
Reported NARUC Bulletin No. 2-1985, pages 14-15
Adopted November 28, 1984

Convention Resolution No. 7

## Resolution Supporting Adoption by State and Federal Regulatory Commissions of a Policy Mandating Electric and Gas Utilities to Develop and Submit for Approval Least-Cost Resource Plans

**WHEREAS**, It is imperative that the Nation exert more control over its energy future and acknowledge its inherent uncertainities; and

**WHEREAS**, It is necessary that demand and supply planning be fully integrated to ensure that resources are used prudently and that our energy needs are met at the least possible cost; and

**WHEREAS**, Energy conserved is a resource and should be subjected to the same need and cost-effectiveness standards as other resources; and

**WHEREAS**, Conservation can reduce growth in energy demand and thus reduce the need for the construction of new electric facilities; and

**WHEREAS**, Conservation should be viewed by utilities as an alternative to new supply options; and

**WHEREAS**, Implementation of this policy will provide the ability to select resources based on the most important factors: need, cost reliability and environmental considerations; now, therefore, be it

**RESOLVED**, By the National Association of Regulatory Utility Commissioners, assembed in its Ninety-sixth Annual Convention in Los Angeles, California, that State and Federal regulatory commissions should adopt a policy which bases the determination of need for new facilities on the development of a least cost supply plan which evaluates and incorporates all cost effective conservation, load management and alternate energy sources in the least cost supply plan; and be it further

**RESOLVED**, That least cost resource plans should include consideration of the following: (1) conservation; (2) renewable resources; (3) generating resources using waste heat or generating resources of high fuel conservation efficiency; and (4) all other resources.

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Sponsored by the Ad Hoc Committee on Energy Conservation
Reported NARUC Bulletin No. 2-1985, page 16
Adopted November 28, 1984

## Resolution in Support of Federal Research on Energy Conservation

**WHEREAS**, An energy policy that provides a balanced reliance on supplies and demand is essential to the Nation's future well being and security; and

**WHEREAS**, The current worldwide oil surplus and resulting lower oil prices are providing a misleading signal that the energy crisis has passed; and

**WHEREAS**, The ability of the Nation to adjust to future energy supply constraints will depend on the development of new energy efficient products and technologies; and

**WHEREAS**, The gestation period between the initiation of research and the introduction of new products and technologies into the marketplace is as long as 20 years; and

**WHEREAS**, A vigorous conservation research program must be given a high priority now if the Nation is to have the new technologies and products needed when energy supplies become increasingly constrained; and

**WHEREAS**, Increased energy efficiency is cost effective and will help achieve environmental goals including a reduction in acid rain, the "greenhouse effect" and oxidation damage to trees and crops; and

**WHEREAS**, The building industry, unlike the transportation and industrial industries, is not dominated by large firms which have the motivation and resources to invest in reducing their energy expenditures; and

**WHEREAS**, Building energy efficiency is of particular interest to public service commissioners; now, therefore, be it

**RESOLVED**, That the National Association of Regulatory Utility Commissioners (NARUC), assembled in its Ninety-eighth Annual Convention in Phoenix, Arizona, requests Congress and the Department of Energy to increase the funding of conservation research, particularly for the building sector, so that a balance will be achieved in our Nation's energy programs.

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Sponsored by the Committee on Energy Conservation
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Senator REID. Thank you very much for your testimony.

I think it is interesting to note that the resolution that was adopted in 1984, I think it is, to support national energy goals—1985—is indicative of what hasn't been done. As you know, our first energy crunch was in the early 1970's.

Mr. LONG. Yes.

Senator REID. The resolution was some 10 or 11 years later, and it is still 3 or 4 years later, and we haven't done anything.

I appreciate your and your organization's efforts to bring this to our attention.

Mr. LONG. Thank you.

## STATEMENT OF NICHOLAS A. FEDORUK, DIRECTOR, ENERGY CONSERVATION COALITION

Senator REID. We will now hear from Nicholas A. Fedoruk.

Mr. FEDORUK. Good morning. My name is Nicholas Fedoruk. I am the director of the Energy Conservation Coalition, and I appear before you today to discuss the alternative energy conservation budget proposal for fiscal year 1989.

The alternative budget for energy conservation for fiscal year 1989 recommends a total of $439.2 million for Federal energy conservation programs, a 16-percent increase above fiscal year 1988 appropriations and almost 4½ times the administration's request. State and local assistance programs would receive $247.1 million, while conservation research and development would receive $192.1 million. In real dollars this is less than was appropriated in fiscal year 1986.

The alternative budget, which has been endorsed by 28 national organizations, represents a modest proposal for restoring balance to the Federal energy budget. It should be viewed as a first step toward significantly higher levels of funding for energy conservation that sound energy and economic policy dictate.

The President's proposed fiscal year 1989 budget would cut energy conservation programs 74.2 percent below fiscal year 1988 appropriation levels, from $368.3 million to $94.9 million. Unfortunately, these deep cuts reinforce a long-established trend of decreased Federal funding for energy conservation programs. Conservation now only accounts for one-half of 1 percent of the Department of Energy's proposed $16.1 billion budget.

As you have heard from previous witnesses the effectiveness of energy conservation technologies and programs has been enormous, and the potential is even greater.

In putting together this budget, we believed that there were five major considerations that should be examined, and I would like to review them with you. Federal energy appropriations should be based upon potential for meeting important national needs. The priorities are: meeting energy needs cost effectively, reducing oil imports, improving America's international competitiveness, and improving environmental quality, and improving quality of life for low-income and disadvantaged households.

In terms of cost effectiveness, we believe that in the last decade the United States has discovered and implemented an abundance of least-cost energy efficiency methods and technologies. Using methods which are less costly than acquiring energy from conventional supplies, we could save an additional $80 million a year or more.

As to reducing oil imports, in 1987 oil imports accounted for more than 25 percent of the U.S. trade deficit. If the U.S. economy still consumed oil and gas at 1973 rates, oil imports would have comprised 55 percent of the trade deficit or more. If we increase our transportation efficiency, we may be able to overcome the diminishing domestic supply of high-cost oil.

In improving America's international competitiveness, continued advances in energy-saving technology and practices can increase America's industrial competitiveness by reducing the cost of production and increasing the international attractiveness of American products.

For example, a Federal R&D program to develop gas-fired heat pumps, which are at least 50 percent more efficient than present gas furnaces, would compete directly with a similar Japanese program.

Currently, the United States expends 11 percent of its GNP on energy. Japan expends 4 to 5 percent and is becoming more efficient, while it seems that our efficiency has leveled out. We cannot afford to persist in this posture.

As to improving environmental quality, energy conservation reduces environmental harm resulting from energy use and can reduce the cost of pollution abatement. Energy conservation can play a significant role in reducing acid rain emissions, destruction of the ozone layer, thermal and solid waste, and nuclear waste.

A 1983 National Science Foundation study concluded that energy conservation is the crucial method for mitigating potential damage from the greenhouse effect.

A recent study has shown that it is possible to cleanup acid rain emissions in the dirtiest region of the country at negative cost to the consumer. An accelerated conservation program, in fact, reduces the costs, including the cost of emission cleanup.

Senator REID. The witness' time has expired, and I would like to indicate to you that I think the most powerful part of your statement is the part of your conclusion where you state energy conservation is "the easiest and most economical way to meet U.S. energy needs. It reduces oil imports, improves U.S. international competitiveness, improves environmental quality, and helps reduce the burden on those with low and fixed incomes."

### PREPARED STATEMENT

I appreciate your statement today.

Mr. FEDORUK. I appreciate the opportunity, sir.

[The statement follows:]

# STATEMENT OF NICHOLAS A. FEDORUK

I appreciate the opportunity to testify before the Interior subcommittee on behalf of the Energy Conservation Coalition. The Energy Conservation Coalition is an alliance of twenty national public interest organizations that share a common determination to significantly increase America's energy efficiency. The Energy Conservation Coalition is affiliated with the Environmental Action Foundation.

It is time to revitalize the deteriorating federal commitment to energy efficiency. Successful and productive federal energy conservation programs deserve funding increases and will sow the seeds for future increases in energy efficiency.

The Alternative Budget for Energy Conservation for FY 1989 recommends a total of $439.2 million for federal energy conservation programs, a sixteen per cent increase above FY 1988 appropriations and almost four-and-a-half times the Administration's request. State and Local Assistance Programs would receive $247.1 million, while Conservation Research and Development (R&D) would receive $192.1 million. In real dollars this is less than was appropriated in FY 1986. The alternative budget, which has been endorsed by 28 national organizations, represents a modest proposal for restoring balance to the federal energy budget. It should be viewed as a first step toward significantly higher levels of funding for energy conservation that sound energy and economic policy dictates.

The President's proposed FY 1989 would cut energy conservation programs 74.2% below FY 1988 appropriation levels, from $368.3 to $94.9 million! Unfortunately these deep cuts reinforce a long-established trend of decreased federal funding for energy conservation programs. Conservation now only accounts for one-half of 1% of the Department of Energy's proposed $16.1 billion budget.

Energy conservation has been the fastest growing energy source in the U.S. economy; energy efficiency improvements made since 1973 are now saving the U.S. an estimated $130 million per year. More can be saved, if we are wiling to step up our efforts. Past investments in new energy efficiency technologies may have carried us through most of the 1980's, but sharp cuts in energy efficiency expenditures during these years will endanger future improvements in energy efficiency, unless we take action.

## FEDERAL ENERGY PRIORITIES

Federal energy appropriations should be based upon potential for meeting important national needs. The following are important issues the Congress should consider when funding DOE energy programs:

- Meeting Energy Needs Cost-Effectively
  In the last decade, the United States has discovered and implemented an abundance of least-cost energy efficiency methods and technologies; using methods which are less costly than acquiring energy from conventional supplies, we could save an additional $80 million per year or more.

- Reducing Oil Imports
  In 1987, oil imports accounted for more than 25% of the U.S. trade deficit. If the U.S. economy still consumed oil and gas at 1973 rates, oil imports would have comprised 55% of the trade deficit or more. If we increase our transportation efficiency, we may be able to overcome the diminishing domestic supply of high-cost oil.

- Improving America's International Competitiveness
  Continued advances in energy-saving technology and practices can increase America's industrial competitiveness by reducing the cost of production and increasing the international attractiveness of American products. For example, a federal r&d program to develop gas-fired heat pumps, which are at least 50% more efficient than present gas furnaces, would compete directly with a similar Japanese program.

- Improving Environmental Quality
  Energy conservation reduces environmental harm resulting from energy use and can reduce the cost of pollution abatement. Energy conservation can play a significant role in reducing acid rain emissions, destruction of the ozone layer, thermal and solid waste, and nuclear waste. A 1983 National Science Foundation study concluded that energy conservation is the crucial method for mitigating potential damage from the greenhouse effect.

- Improving Quality of Life for Low-income and Disadvantaged Households
  Energy prices have a disproportionate effect on low-and fixed-income citizens. Low-income families generally have the least energy efficient dwellings. In 1986, low-income households used 14-15% of their income for energy bills, three times the national average. Weatherization programs using improved retrofit techniques can mean increased food, clothing, and comfort for our most vulnerable citizens.

## ALTERNATIVE ENERGY CONSERVATION BUDGET REQUESTS FOR FY 1989

(A detailed line-item by line-item budget, including descriptions of new initiatives, is available from the Energy Conservation Coalition.)

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| ENERGY CONSERVATION PROGRAMS | $439.2 million<br>(FY 1988 + 16%) |
| Energy Conservation R&D | $192.1 million<br>(FY 1988 + 19%) |
| • Transportation Programs | $60.5 million |
| • Industrial Programs | $36.7 million |
| • Buildings and Community Systems | $56.0 million |
| • Multi-Sector Programs | $36.6 million |
| • Policy and Management | $2.3 million |
| State and Local Assistance Programs | $247.1 million<br>(FY 1988 + 14%) |
| • Institutional Conservation Programs | $35.6 million |
| • State Energy Conservation Programs | $18.8 million |
| • Energy Extension Service | $6.0 million |
| • Weatherization Assistance Program | $168.0 million |
| • Territories Assistance | $.2 million |
| • Program Direction | $18.5 million |

## CONCLUSION

We urge the Congress to reject the Administration's minimal request for federal energy conservation programs and provide funding commensurate with national needs and energy efficiency opportunities. As stated above, energy conservation is the easiest and most economical way to meet U.S. energy needs. It reduces oil imports, improves U.S. international competitiveness, improves environmental quality, and helps reduce the burden on those with low and fixed incomes. We believe that the Alternative Energy Conservation Budget for FY 1989 is a modest step towards revitalizing our energy efficiency. We ask you to take that first step.

## STATEMENT OF GEORGE FUMICH, GEORGE FUMICH ASSOCIATES

## ACCOMPANIED BY RICHARD A. BAJURA, DIRECTOR, ENERGY AND WATER RESEARCH CENTER, WEST VIRGINIA UNIVERSITY

Senator REID. We will now hear from George Fumich, of the Bureau of Mines, or at least the Bureau of Mines witness.

It is my understanding that you and Mr. Bajura are going to testify together, is that right, Mr. Fumich? You have 10 minutes; divide it any way you want.

Mr. FUMICH. First, I want to talk about the topic that we are starting off with, and that is going to be in two different points. I would rather talk to you informally and forget about the formal statement, a copy of which you have, and also a copy of the summary.

Senator REID. The statement and summary will be made part of the record.

Mr. FUMICH. We would like to commend and congratulate Senator Byrd and the committee for the wisdom of establishing the clean coal program. This is one of the things we want to do. We want to endorse the value and the need, the critical need, of that particular program. The other part of the briefing session that we have here, we want to try to reserve for the coal and liquids problem.

The major critical need as far as energy in the future is going to be the liquids transportation problem, and the formal statement addresses that in two ways:

One, we need to extend the reserves that we presently have in oil; also, gas, oil shale, and the other resources that we have. We recommend certain limits of funding in those particular categories, and we can address that a little bit later either by questions or by other answers in the record.

The major part of the briefing this morning we would like to devote to coal liquids. In recent years, hundreds of millions of dollars have been spent on modernizing and trying to improve the efficiency of German coal liquefaction technology.

As we all know, their technology was in two different phases, either direct liquefaction or indirect liquefaction. We have all of this work that has been done in the past, but in spite of that the cost of synthetic liquid fuels is still too expensive. Until recently it was about $80 a barrel. Because of recent breakthroughs, with some new catalysts and everything, the costs have been brought down to about $30 a barrel. But even that is too expensive for private industry or other entrepreneurs to launch major programs in that particular area.

So, what we are recommending is a large—about a $100 million effort for 3 to 5 years in advancing the technology in this area. We feel that after about a 3- to 5-year effort at that particular level, that we can then be ready for phase 2 of coal liquids, and that would be somewhat similar to our present clean coal demonstration program. We feel that if we try to do something like that at the start, it wouldn't work because we are not quite ready for that with our technology yet.

We also realize that we have some terrible fiscal constraints. In our opinion, it is very, very difficult for the committee to come up with the minimum-type funding that we think would be necessary for a realistic thrust in these particular areas.

For that reason, we also recommend other levels of effort in each one of these areas for advanced research. In other words, rather than go full throttle ahead in direct liquefaction, indirect liquefaction, oil shale research, enhanced oil recovery, gas, and the others, what we would try to do, we also set out what we consider legitimate numbers for advanced research in each one of these areas.

The reason that we think it's critical, I think we all realize what the Hormuz Strait situation is today in the Middle East. We know that liquids represent about 97 percent of our transportation requirements, and also on the other side of the coin, that transportation consumes about two-thirds of our liquids today.

Our liquids consumption is about 15 million barrels per day. About 5 million of that is in imports, and if we don't do anything about this, in about 5 years this is going to double. In other words, it will be about 10 million barrels a day in imports. And instead of being about 25 percent, that's going to go up to 50 percent.

My time has expired. But if we can answer any of your questions to try to expand this or furnish other comments for the record, we would be very happy to do so.

Thank you, Mr. Chairman.

Senator REID. Thank you.

### STATEMENT OF MR. BAJURA

Mr. BAJURA. Thank you, Mr. Chairman.

For the record I will state I am Dick Bajura of the Energy and Water Research Center at West Virginia University. With me today is George Fumich, who is a consultant to our programs.

In my comments this morning I want to address three topics: coal liquefaction research, the research programs of the Bureau of Mines, and the National Research Center for Coal and Energy. Because of the diversity of these topics, I will just summarize my remarks.

First, on coal liquefaction research, we have heard from many people this morning about the need for liquefaction research. Recognizing this need, in 1985 a group of universities got together and formed the Consortium for Fossil Fuel Liquefaction Science. We have been working for 3 years now. We have developed some good ideas on how to produce coal liquids, and we would like to expand our level of research effort to bring some of these ideas to fruition.

We are recommending that $3.5 million be allocated to support the Consortium for Fossil Fuel Liquefaction Science in fiscal year 1989. We believe this is consistent with national needs.

On the second topic, the Bureau of Mines research programs, our university works very closely with the Bureau of Mines. We have grown to recognize that they do good work. They are very active in getting their technology transferred out into the field. And we view with alarm the reduction in funding that has occurred in the Bureau of Mines inhouse programs.

In particular, we would like to see increases in three critical areas: health, safety, and mining technology; environmental technology; and minerals and materials research science. We are recommending that these levels be brought up to at least the level of fiscal year 1987 so that they can continue to maintain a vigorous research program.

Now, in some of these projects the Bureau provides funds for cooperative research with institutions like West Virginia University. For example, we are working with the Bureau to develop a mine monitoring system that will assist the section foreman in making critical decisions in times of an emergency. West Virginia University is cost sharing in this research at a level of 50 percent.

We are also working with the Bureau on developing a program in occupational training, for which we are recommending $400,000 be allocated for West Virginia and Penn State University to work with the Pittsburgh research center to maintain this program.

Later this afternoon I will appear before the committee on behalf of the Mineral Research Institute Directors, and I will talk a little bit about our work in respirable dust and mine land reclamation.

In mind land reclamation, Mr. Chairman, West Virginia University is contributing $4 of State money for every $3 in Federal money that we are getting to support this effort.

While I discuss these difference areas in the context of what we're doing at West Virginia University and how this interacts with the program that we call the National Research Center for Coal and Energy, in fiscal year 1988 Congress provided $6 million to support this program and declared its intent to provide an additional $9 million in fiscal year 1989. This money was intended to support the construction of a building and equipment.

But I want to tell you that the National Research Center for Coal and Energy is not a building. It is a program. It is a program that addresses national needs. And the research projects that I have discussed here this morning, we work collectively with 14 of our sister institutions, with industry, and with the Federal Government on projects of national interest in fuel utilization, in extraction, and environmental protection.

Our president, Neal Bucklew, submitted testimony on April 25 to the subcommittee to describe the status of the National Research Center. In summary, I will say that we are making good progress. We have selected an architect. We are going ahead with building plans. And in my comments this morning I hope you see how we are going ahead with the research part of our program in developing ideas that relate to the national interest and working collectively with our national experts.

### PREPARED STATEMENTS

I appreciate the support of the subcommittee for this program and appreciate the chance to appear here today. Thank you.

Senator REID. Thank you both for your testimony.

[The statements follow:]

# STATEMENT OF GEORGE FUMICH

I am George Fumich of George Fumich Associates. Dr. Richard A. Bajura and I are pleased to have the opportunity to appear before you today to testify on the subject of Fossil Energy Research & Development Appropriations for FY1989.

We have two primary purposes today. The first is to reaffirm support for the Clean Coal Technology Programs (CCTP's) which this Subcommittee has been so instrumental in establishing. We congratulate this Subcommittee, the full Committee and the Congress for their wisdom in establishing these programs. We are pleased to see that in its FY 1989 Budget Request, the Department of Energy is also now fully supporting this important program. We urge continued support for full implementation of this program. The successful completion of these programs will help to assure the continued role of coal as an environmentally acceptable fuel source for electricity generation and for industrial uses.

The second purpose is to urgently implore that you address the problem of the deteriorating outlook for economical domestic liquid fuels supplies in the mid-to-late 1990's. Investments in domestic production of oil have been hard hit by the drop in world oil prices since late 1985. Most studies we are familiar with project dramatic decreases in domestic production by the mid-to-late 1990's. Yet the demand for liquid fuels, as our economy continues to grow, will increase, even if we continue to increase the efficiency with which liquid fuels are used. Liquid fuels for transportation are critical to our total economy. Recent reassessments by the USGS of the remaining undiscovered oil resources raise further serious uncertainties over the prospects for new discoveries to replace depleting reserves.

As world-wide demand for oil continues to grow, we are highly likely to again find control over the price of oil falling more strongly into the hands of foreign governments. The consequences for our domestic economy are dire. On the one hand, if prices were to run up sharply again, that would have severe negative impacts. On the other hand, even if prices do not run up sharply, the costs of sharply increasing oil imports could have severe negative impacts on our balance of trade and the national economy.

The time to start doing something about changing the future outlook is now, while we still have time to change the outcome. We can change the outcome through two major steps. One is to intensively pursue R&D on alternative liquid fuels supplies, particularly clean coal liquids. The second is to intensively pursue R&D focused on recovering more of the already discovered oil. Given the technologies available today, we can only recover about 30-35% of the oil-in-place, on average. That means, if we do not quickly find better ways to recover this oil, we will leave over 300 billion barrels of oil in the ground. Many of the fields in which this oil is found are rapidly depleting. Once these fields are abandoned it will be very difficult to go back into them to recover the remaining oil at a later time. This is true throughout the country and in particular in the older and smaller fields in Appalachia. Therefore, time is running out to do something about the availabililty of improved capabilities to recover more of the oil in these fields. This two-step approach can simultaneously help to slow the rate of decline of domestic oil production and hasten the day when clean coal liquids and oil shale will be economical and can begin to make a contribution to the domestic liquid fuel supply mix.

What is needed is a concerted National effort over the next five or so years which focuses increased resources on R&D in these technology areas.

Given the portrayal of the challenge we face as Nation, let me now turn to the specifics of the appropriations which are the subject of this hearing, the proposed fiscal year 1989 Appropriations for Fossil Energy Research & Development. Fiscal year 1989 should be the first year of this concerted National liquid fuels R&D Program. The balance of my testimony will address recommendations for the minimum level of funding necessary to initiate the National commitment.

Coal Liquifaction - Our experiences in the late 1970's based primarily upon modernized versions of old German-developed technologies showed that much more economical approaches would be needed. Recent progress at developing new approaches has shown considerable promise for reducing the cost of coal-derived liquids. There are also indications that even further reductions can be achieved through focused, intensive R&D effort. That effort should include all stages of R&D from advanced research to applied research, and engineering development. It should include direct and indirect liquifaction, coal-oil co-processing and other novel concepts. The advanced research efforts should include new catalysts, biotechnology and other activities with high potential payoff.

Ideally, the recommended level of funding to address the research needs for coal liquifaciton would be $100 million, $20 million of which should be for advanced research. Recognizing the current fiscal restraints, this total amount of funding may not be feasible this year. Hopefully, at least the advanced research portion can receive serious attention.

Coal Gasification - Significant progress is already being made to develop coal gasification systems for electric power production and fuel gas production. The current Clean Coal Technology Program will also enable promising systems to be demonstrated at commercial scale. However, a more intensive R&D activity is required on gasification technologies for synthesis gas production, and coproducts production, including mild gasification. The synthesis gas production portion of indirect liquifacation systems is a major part of the cost and complexity. Here again, advanced research could also make a significant contribution through novel new concepts, biotechnology, and new ways to handle coal prior to gasifying it and to purify the gas streams produced.

Here again, ideally, the recommended level of funding to address the liquids production research needs in coal gasification would be $25 million, $5 million of which should be for advanced research. As discussed above, fiscal constraints may mean that these needs cannot be fully met in FY1989. Again, however, we would hope that some portion of this could be met, particularly the advanced research.

## Enhanced Oil Recovery, Oil Shale, and Advanced Process Technology

These three technology programs have the potential for both significantly improving the outlook for the rate of decline of oil production, *and* developing alternative, unconventional sources. The first two areas are familiar to all of us. However, the third, "Advanced Process Technology", is one that few are aware of and even fewer understand. It is intended to be to Oil, Gas, and Shale R&D what the Advanced Research and Technology Development Program is to Coal R&D. Yet that is not apparent by either its title nor its current program content.

There is a need in all three of these areas for a far more intensive R&D effort focused on the total conventional and unconventional resources. There is a need for increased research focusing on both Eastern and Western oil shales, and on tar sands as well. Finally, the enhanced oil recovery research must address the oil resources of all our oil-producing regions, including Appalachia.

The recommended levels of funding for the Enhanced Oil Recovery Program is $40 million and should include a balanced program addressing all the resources. For oil shale, the recommended level is $20 million, which should include separate portions focused on Eastern and Western oil shale. Finally, the recommended level for the Advanced Process Technology Program, which should be a balanced program covering advanced research in both oil and oil shale, as well as gas is $15 million. As in the case of the coal program area, fiscal constraints may limit the resources available in FY1989. However, significant steps should be possible, particularly in the advanced research areas.

## Summary

In summary, Mr. Chairman, we want to reiterate our opening remarks. We strongly endorse the Clean Coal Technology Program and urge this Committee to supports its full implementation. We also urge the Committee to address the need for a new National Liquid Fuels R&D thrust. The first step in doing that can be accomplished in the FY1989 appropriations process. That could make FY1989 the first year of a multi-year commitment to significantly increase R&D focused on our liquid fuels needs of the next decade, and beyond. Finally, we have provided recommended levels of funding to initiate this commitment. While the practical considerations of current fiscal constraints may preclude fully addressing these needs, hopefully a significant start may be made.

Thank you for the opportunity to appear before this Committee today to present our view on these very important matters.

## STATEMENT OF RICHARD A. BAJURA

Thank you, Mr. Chairman, and Members of the Subcommittee for the opportunity to appear today to testify on behalf of the Mineral Research Institutes Program. I am Richard Bajura and I am the Director of the West Virginia Mining and Minerals Resources Research Institute.

I represent the National Association of Mineral Research Institute Directors (NAMID), for whom I currently serve as Vice Chairman. Mr. Tippin, the current chair, could not attend the hearing due to the death of his father. I am accompanied today by George Fumich, who works with me in his role as a consultant to our University to develop and plan our research programs in mining and mineral resources.

Before continuing our testimony, we first wish to thank Chairman Byrd, Ranking Senator McClure, and the other members of the Subcommittee for their continued bipartisan support for mining and minerals research. We believe this action by the Subcommittee is far-sighted and wise. We believe, as you do, that our nation must recognize the strategic role that mining and minerals research plays in our self-sufficiency. It is essential to make such investments to ensure our energy security and supplies of critical materials.

## Mineral Research Institutes Program

The Mineral Research Institutes Program is a necessary component of our national investment portfolio in mining and minerals research. This program provides funding to support applied research and the development of our future minerals technologists.

We urge your continued support for the Mineral Research Institute Program. We appreciate the action by Senator Johnston, Chairman of the Committee on Energy and Natural Resources and a member of this Subcommittee, in introducing Bill S.2240 in the 100th Congress to reauthorize this program for fiscal years 1990 through 1994. NAMID enthusiastically urges reauthorization of the Mineral Research Institutes Program.

### A. Allotment Grants

The initial legislation for the Mineral Research Institutes established an allotment grant for participating institutes. These grants currently have an authorized level of funding of $400,000 per year to each institute. Funding appropriated by Congress over the past several years, however, has fallen below its earlier level of $150,000, which has characterized the ten year history of the

Institutes program. Recognizing that the effects of inflation have eroded the buying power of the original $150,000 per year appropriation, we recommend that $7,200,000 be budgeted for the allotment program for the coming fiscal year. This level will allocate $225,000 for each institute, and will restore the initial research buying power of the allotment grants.

We call the Subcommittee's attention to the fact that federal funds are cost-shared by the participating institutes at a rate of $2 from each institute for each federal dollar awarded. The overall impact of the federal funding for allotments is to provide seed money for a total program of $21,600,000 for mining and minerals research.

At West Virginia University, we utilize these funds to support a wide variety of projects related to the coal, petroleum, and natural gas industries. These funds are a cornerstone in our overall Energy and Water Research Center programs in the areas of resource extraction, fuel utilization, environmental protection, and market enhancement. The energy sector of West Virginia's economy is a key to our State's well being. This program provides funding to develop not only new technologies, but also serves as a stimulus to our economic development.

## B. Research Grants

Another vital part of the Mineral Research Institutes Program is the allocation of money for Research Grants. These grants support studies in more narrowly defined areas in order to concentrate resources and build research teams which can address and solve important problems in the mining and minerals area. There are currently four generic technology centers supported under the research grants program in the areas of: mine systems design and ground control; comminution; mineral industry waste treatment and recovery; and, pyrometallurgy.

NAMID Chairman Tippin and I have met with many of our fellow directors and other interested industry and academic individuals and have formulated a plan of action regarding the generic centers program. We believe that the generic centers program brings together key researchers across the country who can focus expertise and resources to solve our pressing problems in the minerals industry. We want to establish additional centers to address important areas such as the use of artificial intelligence and computers in the industry, hydrometallurgy, materials handling, and mining equipment design. I am sure there are other areas of importance to improving our productivity and competitive edge which are not on my short list above.

In order to implement our plan, we are recommending funding for Research Grants at a level of $5,000,000 for the coming fiscal year. This funding is intended to provide an increase for the four current generic centers to the original level of $1 million, and to reserve the remaining $1 million for establishing a new generic center in an area to be determined. In the following years, we will request additional allotments for establishing a new generic center each year. The Advisory Committee of the Bureau of Mines for the Mineral Research Institutes can provide guidance on the mechanism for implementing these centers.

We urge serious consideration of this proposal and wish to affirm our interest in working with Congress and the Bureau of Mines to establish these additional centers.

### C. Other Research Centers

The Generic Technology Center for Respirable Dust, the Marine Minerals Technology Center, and the National Mine Land Reclamation Center are other research programs administered by the Bureau of Mines under the Mineral Institutes Program. Funding recommendations for these three centers for FY 89 are: $2,500,000; $1,600,000; and, $2,500,000, respectively. Statements regarding these three centers are given below.

## Generic Technology Center for Respirable Dust

Congress has provided steady support to a consortium of universities to address the serious problems our nation faces in caring for miners with disabilities due to respirable dust exposure. Participants in this consortium include The Pennsylvania State University (lead institution), West Virginia University, the Massachusetts Institute of Technology, the University of Minnesota, and the Michigan Technological Institute.

Researchers in our consortium have made significant contributions to identifying medical factors which play a role in causing respirable coal mine dust diseases. Our research teams are characterizing those properties of different coal seams and different mining techniques which may be significant factors contributing to the incidence of coal workers pneumoconiosis (CWP).

It has been our observation that team building requires years of time and effort on the part of the coordinators at each institution and their respective research faculty. The financial resources available under the respirable dust program enable both West Virginia University and The Pennsylvania State University researchers to develop strong working relationships with colleagues in other disciplines at their respective institutions.

Current trends in research management include the use of group problem solving methodologies in formulating research plans. The formation of teams enables all technical specialties at each institution to be brought to bear on a particular problem. This approach is more productive than conducting the research on a project-by-project basis among a collection of participating institutions where there is little communication between researchers.

We recommend the generic center concept for building strong research teams, but caution that this concept works better when there are only a limited number of consortia members. By limiting the number of schools participating, the available funding can be used effectively to build multidisciplinary teams which can work cooperatively and efficiently in mounting a successful research effort. If researchers know that long range funding will be available if they do good work, then the faculty and their respective departments and colleges will be willing to make additional investments in the research program.

Our patient process of building research teams has led to extensive exchanges of information between colleagues at a each institution, and between institutions. We are developing new and important knowledge about CWP at this point in our program. We therefore urge continued support for the Generic Technology Center for Respirable Dust now that the necessary initial investments in coordination time and financial resources have been made. This investment will allow significant results to be attained in each subsequent year's effort. Considering that benefits payments for respirable dust disability are approaching $2 billion annually, investments in this research area will result in reduced costs to government and industry in the long run, in addition to relieving workers of the human suffering associated with these diseases.

We recommend funding for FY 89 at the level of $2,500,000 as in the past two years.

## Marine Minerals Technology Center

The Marine Minerals Technology Center, (MMTC) was established by Congress in FY 88 and will be administered under the auspices of the U.S. Bureau of Mines. The primary objective of the MMTC is to encourage the development of selected mineral materials from U.S. seabeds by providing opportunities for appropriate engineering systems research, development, and technology transfer within academic, government, and industrial communities. The center will also provide leadership in developing technologists for ocean mineral development.

This new center has not been awarded funding at this date and is only in the initial stages of drawing together its research teams. I have appended information prepared earlier by Mr. Woolsey, the Director of the Center, as a source of additional information for the Subcommittee.

We recommend funding for the second year of this center at a level of $1.6 million.

## National Mine Land Reclamation Center

Following guidance from Congress, the Bureau of Mines has established a National Mine Land Reclamation Center at West Virginia University. We are joined in this work by The Pennsylvania State University, Southern Illinois University at Carbondale, and the University of North Dakota and North Dakota State University. By working jointly with the Bureau of Mines, we plan to conduct an extensive program of research to reclaim abandoned coal mine lands. We anticipate that our work will also have some application to coal mine lands which are currently active.

Our initial funding of $1.128 million for FY 88 will allow each institution to initiate a modest research program with associated technology transfer activities. We have established a long range funding plan to achieve our goals of addressing national problem areas such as water quality, subsidence, waste disposal, and revegetation. For FY 89, we recommend funding at a level of $2.5 million. Our target funding level for FY 90 is $3.5 million to reach a mature program status in coal mine land reclamation research.

In view of the limited funding available, we have chosen to focus on coal mine lands in our initial research programs. Additional funding above the $3.5 million level will be sought in later years to develop programs to reclaim lands which have been mined for other minerals, and to expand the number of participating institutions.

A significant level of cost-sharing will be contributed by our states and local industries to this activity. For example, West Virginia University will contribute $428,490 as cost sharing for $315,840 in anticipated federal funding. Overall, the participants will contribute approximately $3 for every $4 in federal funding requested for FY 88.

Our State has established an Acid Mine Drainage Institute at West Virginia University. This Institute will focus on the troublesome problem of preventing and mitigating acid mine drainage from our coal mining areas, and will interact strongly with the National Center.

## D. Administrative Costs

In closing our presentation on the Mineral Research Institutes, we recommend that funding for administrative purposes be awarded to the Bureau of Mines at a level of $350,000 for FY 89.

## Concluding Comments

Thank you, again, Mr. Chairman, for the opportunity to testify before the Subcommittee, and for your continued support for our research programs. A summary of our funding recommendations is given in the table below.

### Table of Funding Recommendations

| | |
|---|---|
| Allotment Program | $7,200,000 |
| Research Grants | 5,000,000 |
| Respirable Dust Center | 2,500,000 |
| Marine Minerals Center | 1,600,000 |
| Mine Land Reclamation Center | 2,500,000 |
| Administration | 350,000 |

## Statement Regarding Marine Minerals Technology Center

by
J. Robert Woolsey
University of Mississippi
Minerals Research Institute

STATEMENT SUBMITTED TO THE
HOUSE APPROPRIATIONS SUBCOMMITTEE ON INTERIOR
MARCH 10, 1988

FOR
THE MARINE MINERALS TECHNOLOGY CENTER

### Summary

This statement is respectfully submitted in support of the Marine Minerals Technology Center, a generic technology center of the State Mining and Mineral Resources Research Institute Program, as reauthorized in 1984 under Public Law 98-409.

The Marine Minerals Technology Center (MMTC) was established by Congress in FY 1988 as part of the Mineral Institutes Program, and is administered by the U.S. Bureau of Mines under the auspices of the Department of the Interior. The primary objective of the MMTC is to encourage the development of selected mineral materials from U.S. seabeds by providing opportunities for appropriate engineering systems research, development, and technology transfer within academic, government, and industrial communities. The center will also provide the leadership and facilities required for the education and training of the nation's scientists and engineers in the field of ocean mineral development.

Funding for the MMTC in FY 1988 is $1,200,000, of which approximately 50% is directed toward research and support programs. An increase in funding to $1,600,000 is requested for FY 1989. The requested increase will primarily be directed toward additional programs of research and development in ocean mineral technology. For FY 1989, it is anticipated that funded research and support programs will compose greater than 60% of the total budget.

### Marine Minerals Technology Center

Depletion of mineral reserves and rising costs of mining have slowly changed the United States from a mineral-rich nation to one increasingly dependent on imports of many basic resources. The U.S. Bureau of Mines now lists 21 non-fuel mineral commodities for which the United States is over 50 percent import dependent. Probably the most critical of these are cobalt and manganese, of which the U.S. now imports 95 and 98 percent, respectively. The lessons of history are clear: the strength and wealth of states and nations are inexorably linked with the ready access to critical mineral resources and the support of related innovative industrial technology.

The National Materials and Minerals Policy Research and Development Act of 1980 called upon the government to support and encourage the development of a strong domestic materials industry, including mineral resources. In March of 1983, President Reagan issued Proclamation 5030, declaring the Exclusive Economic Zone (EEZ) which extended the sovereignty of the United States over seabed resources within 200 nautical miles of the coastline of the U.S. and its possessions. This declaration more than doubled the nation's jurisdictional area and emphasized the need to develop the mineral wealth of the region.

The 1988 establishment of the MMTC by Congress will provide the focus and guidance necessary to assure an orderly development of the mineral resources of the EEZ with due regard for the protection and conservation of the environment. As a generic research center, the MMTC brings together leading scientists and engineers in the field of marine minerals and ocean mining, thus linking universities, research institutions, and industry. Successful working relationships, including project support and funding, have already been established with industry. The MMTC also functions as a training center and as an information and reference center, particularly with regard to the transfer of technological developments to industry as part of the cooperative effort.

One of the primary concerns of the MMTC is the characterization and assessment of domestic offshore mineral deposits of economic and strategic importance. Emphasis will be placed on the related technologies and methodologies, including the development of efficient tools, systems, and techniques for the exploration, characterization, mining, and processing applicable to marine minerals. Full consideration of relevant ecological concerns will assure that as exploration and development proceed, negative environmental impact will be minimized. A concerted effort will be made to incorporate environmentally oriented engineering design in all systems and procedures as a matter of center policy.

The minerals of interest occurring in the marine environment can be classified into five commodity groups. Three of these groups occur predominantly as resources of the continental shelf: construction materials (sand, gravel, and shell); placer deposits (titanium, gold, platinum, and rare earths); and phosphorites (a principal ingredient for fertilizers). The remaining two groups, metalliferous oxides and sulfides (cobalt, manganese, nickel, copper, etc.), occur predominantly as resources of the ocean basins. Each of these commodity groups will require a different approach for resource development and management.

The near-term potential for exploitation of the mineral resources of the shallow continental shelf is especially promising. The recovery of certain nearshore commodities is technically feasible and economically sound in today's market, as evidenced by ongoing offshore dredging operations for shell, sand, gravel, and gold in the United States. The documented presence of strategic ores of titanium, zirconium, and the rare earth elements occurring in heavy mineral sand deposits further enhances the interest in the nearshore region. As traditional onshore reserves of phosphorite are depleted, the potential for profitable mining of the extensive phosphorite deposits of the southeastern continental shelf should be investigated. Alternative sources of phosphorite, critical to the nation's agricultural industry, are imports from the Soviet Union, Morocco, Algeria and Libya, the only other principal producing countries having world class reserves.

During the past two decades, interest has been generated in the manganese nodules, cobalt-rich ferromanganese crusts, and polymetallic sulfide deposits found in deep ocean basins. Such deposits will have considerable strategic importance to the economy and security of the nation in the decades to come. Recognition of the vast potential of the mineral wealth of the ocean basins has precipitated investigations by both the private and public sectors, domestically and internationally. These efforts have resulted in the development of numerous conceptual technologies and methodologies for deep ocean basin exploration and resource evaluation. The known ocean basin deposits provide a resource that will undoubtedly be tapped in the next century.

Because of the broad spectrum of study encompassed by the field of ocean mining and mineral resources, the MMTC is organized to include separate divisions for nearshore and deep ocean research. The Continental Shelf Division is administered by the Mississippi Mineral Resources Institute (MMRI) of the School of Engineering at the University of Mississippi. Operational activities will be based at the National Space Technology Laboratories near Bay St. Louis, Mississippi. The Ocean Basin Division is administered by the Center for Ocean Resources Technology (CORT) and the Pacific Ore Resources Technology Group (PORT) of the University of Hawaii at Manoa. The two divisions will be guided by the MMTC Board of Directors composed of 12 recognized leaders in ocean minerals and mining research and development from industry, academia and government.

## The Mississippi Mineral Resources Institute

In recent years, the Mississippi Mineral Resources Institute has conducted or actively participated in a number of offshore projects with a wide range of purpose and sponsorship. Organized under the Mineral Institutes Program of the U.S. Bureau of Mines, MMRI has taken a special interest in the development of technology for the exploration of offshore mineral resources. Several MMRI personnel have brought to the organization years of experience in offshore exploration, mining, and mineral processing, having worked extensively in both domestic and foreign waters. As a result, MMRI has been able to take leading roles in project planning and coordination with international organizations, governmental agencies, and private sector industries.

Recognizing that exploration of offshore resources is the first step toward the eventual development of a mining industry, MMRI has conducted a number of projects for the purpose of assessing and characterizing various mineral deposits in localities throughout the world. More recently, attention has been focused on the EEZ, with several industry-sponsored cooperative research programs to examine the existing mineral resource potential of the nearshore waters of the southeastern Atlantic continental shelf and the Gulf of Mexico.

As a part of all research programs, considerable effort has been directed toward the creation and modification of a wide range of sampling devices used in marine mineral exploration and reconnaissance surveys. The primary goal in the development of new sampling and surveying technology has been to seek low-cost techniques that can be applied to a variety of offshore environments. In the process of developing this technology, MMRI has often reached outside of its own organization, working extensively with associates in various agencies, university groups, or private industries. The result has been a number of collaborative innovations in geochemical, geophysical and geotechnical methods and systems for offshore exploration.

## The Center for Ocean Resources Technology
## The Pacific Ore Resources Technology Group

The University of Hawaii has achieved recognition as a center of excellence with an international leadership position in deep oceanographic research, including mineral characterization and assessment. In order to strengthen its position in oceanography, the University is currently reorganizing marine research into the new School of Ocean and Earth Science and Technology, which will bring together all earth science researchers to expand research efforts in marine resources and planetary sciences.

The Center for Ocean Resources Technology (CORT), funded by the Hawaii State Legislature and the University of Hawaii in 1986, is leading the effort to establish a marine mining engineering technology program by coordinating ocean resource systems research with an emphasis on total multi-disciplinary systems. Academic research and development is focused in seabed mineral mining and processing, technology adaptations of marine systems, multi-product ocean thermal energy conversion systems, and the associated economic and environmental problems. CORT is organized so that it can work effectively with academic and research organizations, federal agencies, international organizations, foreign governments, and industry.

The Pacific Ore Resources Technology (PORT) group was assembled under the sponsorship of the Center for Ocean Resources Technology at the University of Hawaii. The PORT group serves as the nucleus for an international group of researchers and technicians in marine minerals and mining technology to develop the tools, equipment and systems necessary to exploit the mineral potential of metalliferous deposits of the ocean basin. The PORT group has been charged with the responsibility of having the University of Hawaii at Manoa designated as a Mineral Resource Institute within the Mineral Institutes Program of the U.S. Bureau of Mines.

Conclusion

Although the need to develop the nation's undersea mineral resources has been recognized, technology is currently underveloped in the field of ocean mining. The efficient and environmentally compatible exploration of these resources requires the development of techniques and systems that address the unique problems of the offshore environment. It is essential for the United States to encourage research and development in this new frontier, particularly with regard to those commodities useful in the maintainenance of reasonable foreign trade balances and in the prevention of emergency strategic materials shortages.

The Mineral Resources Committee of the National Association of Universities and Land-Grant Colleges and the National Association of Mineral Institute Directors are grateful for the opportunity to testify before this subcommittee on these issues so vital to the nation's economic welfare and security.

## STATEMENT OF RICHARD A. BAJURA

Thank you, Mr. Chairman, and Members of the Subcommittee for the opportunity to appear today to comment on the research programs of the Bureau of Mines. I am Richard Bajura and I am the Director of the West Virginia University Energy and Water Research Center. I am accompanied today by George Fumich who works with me in his role as a consultant to our University to develop and plan our research programs in mining and mineral resources.

### FY89 Budget Appropriation for Bureau of Mines

A. Bureau of Mines In-House Research

This portion of our testimony regarding the FY 89 Budget Appropriation for the Bureau of Mines specifically relates to the three program areas of:

Health, Safety, and Mining Technology

Environmental Technology

Minerals and Materials Sciences

My remarks will focus on both the in-house R&D budget/programs and several projects administered by the Bureau of Mines which provide funding to institutions like West Virginia University and The Pennsylvania State University.

The Bureau has taken a leadership role in developing new technology in support of our vital mining industries, and actively disseminates the results of their in-house research to the user community. In order to maintain viable R&D programs which result in new technologies, the Bureau of Mines requires a stable in-house budget. Table 1, compiled from appropriations bills, illustrates the amount of funding given to the Bureau of Mines over recent years to support their in-house research efforts.

### Table 1: BOM In-House Funding

(funding in millions of dollars)

| FY | Total R&D Appropriation | Funds to Others | Percent In-House | In-House Funds |
|---|---|---|---|---|
| 86 | $75.9 | $ 6.5 | 92% | $69.4 |
| 87 | 83.1 | 7.0 | 92% | 76.1 |
| 88 | 87.7 | 12.4 | 86% | 75.3 |

When the effects of inflation are considered, the net funding to the Bureau for in-house research has decreased by an estimated $5 million during the past year. For the coming fiscal year, the Administration has recommended funding cuts of 25% for Health, Safety, and Mining Technology programs, 16% for Environmental Technology programs, and 9% in the Minerals and Material Sciences program. We disagree with this approach taken by the Administration and recommend funding for these programs to allow at least a $5 million increase in the present level of in-house funding. Such action, however, will only restore the funding of these programs to the level of FY 87.

## B. Cost Sharing

West Virginia University works cooperatively with the Bureau of Mines on many projects of importance to our coal industry, contributing both State dollars and our expertise to these projects. This cost sharing enables both the federal government and our state government to attain greater research results than either unit could attain if operating independently.

## C. Intelligent Mine Management Systems

Several of our researchers in the Artificial Intelligence Laboratory at WVU have been creating an Intelligent Mine Management System that combines state-of-the-art programming techniques with mine monitoring equipment. One of the systems we have developed (called MINER) will assist in the diagnosis of mine problems such as fires and equipment breakage. A second system (Face Development Support System) acts as an expert consultant to a section foreman in a room-and-pillar continuous mine. We have worked cooperatively over the past 12 or so years with personnel from the Pittsburgh Research Center of the Bureau of Mines to develop these systems. We recommend that funding be provided to allow vigorous research efforts to be continued.

## D. Occupational Training

West Virginia University and The Pennsylvania State University have worked cooperatively for several years on programs to formalize Health, Safety, and Occupational Training for coal miners who work in coal preparation plants, longwall mining sections, and underground haulage. Funding for this activity has been awarded at a level of about $300,000 per year from internal monies in the Bureau of Mines budget. We recommend that Congress specifically award funding at a level of $400,000 per year to support the West Virginia University/Pennsylvania State University efforts, or alternatively, increase the Bureau of Mines budget in this area so that continued funding to our Universities for this program does not negatively impact the BOM in-house efforts.

## E. Research Centers

West Virginia University works cooperatively with the Bureau of Mines and other universities in two research centers to address problems in respirable coal mine dust and mine land reclamation. In separate testimony to be offered later today as part of our presentation on the Mineral Research Institutes Program, we are recommending that $2.5 million be budgeted in FY 89 for the Generic Technology Center for Respirable Dust, and $2.5 million for the National Mine Land Reclamation Center, respectively.

Instead of repeating that testimony at this time, we request the Subcommittee to refer to our submission regarding the Mineral Research Institutes program.

## Concluding Comments

Thank you, again, Mr. Chairman, for the opportunity to testify before the Subcommittee. We appreciate the support of the Subcommittee for our research programs.

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## STATEMENT OF RICHARD A. BAJURA

Thank you, Mr. Chairman, and members of the Subcommittee for the opportunity to testify here today on the topic of liquid fuels from coal. I am Richard Bajura and I am the Director of the Energy and Water Research Center at West Virginia University. Accompanying me today is George Fumich, who works with me in his role as consultant to the University to develop and plan our research programs.

Allowing market forces to determine the price of our liquid fuels may win the battle for low energy prices today, but will cost us the war for a growing economy and national security tomorrow. We are spending millions of dollars daily to maintain armed forces personnel, aircraft carriers, and battle cruisers in the Persian Gulf to ensure the flow of oil out of that region. This massive investment does nothing to avert the predicted petroleum shortage in the 1990s, when experts predict that we will import more than half our petroleum supplies.

Alternatively, modest investments in coal liquefaction research are one important component of a strategy to win our long term energy independence and allow us to prosper. Research concluded over the past five years indicates that coal can now be converted to a crude-oil equivalent fuel for about $35 per barrel. This price is a 60% reduction in costs since the late 1970s, and demonstrates that coal liquefaction has a great potential as an alternative to imported oil.

By letting market forces dictate our energy supplies and prices, our nation has been forced to drastically curtail research investments in developing liquid fuels from coal. It takes at least ten years for a research idea to reach the commercial stage. In order to maintain our nation's preparedness to proceed vigorously in the development of liquid fuels before the next energy crisis occurs, West Virginia University and five other institutions have formed the Consortium for Fossil Fuel Liquefaction Science (CFFLS). Our combined research team includes over 100 faculty, staff, and graduate students.

Funding of our research program has been provided from the U. S. Department of Energy through the Pittsburgh Energy

Technology Center. The CFFLS program has been awarded approximately $1 million for each of its first two years of operation and we are currently awaiting word on the award of $1.2 million for our third year of effort. Our institutions have provided cost sharing at approximately the same level as the funding awarded. This cost sharing is substantial, and demonstrates our firm belief in the importance of this research and our willingness to make institutional investments in the success of the program.

As discussed by Mr. Fumich earlier here today, liquid fuels research is a critical need in our nation's energy security portfolio. The CFFLS program has made significant contributions to the development of coal liquids technology and stands ready to play a more expanded role in the future. Additional funding is required to transform some of our laboratory projects into larger scale experiments and to develop new ideas which currently lie dormant due to the low level of funding available from the current allocations.

We are here today to recommend that the CFFLS program be budgeted at $3.5 million for FY 89 to ensure that robust progress can be made in developing our research ideas into commercial realities. This program is timely with respect to national needs, and involves some of the leading experts in our country in its research programs.

We thank the Committee for funding this program in the past, and will appreciate your continued support in the future. We invite members of the Committee to attend our annual review meeting on August 10 -12, 1988 to visit with our researchers and industrial supporters and learn more about this program.

## STATEMENT OF RICHARD A. BAJURA

Thank you, Mr. Chairman, and Members of the Subcommittee for the opportunity to appear today to comment on the research programs of West Virginia University and our program titled the National Research Center for Coal and Energy.

I am Richard Bajura and I am the Director of the West Virginia University Energy and Water Research Center. I am accompanied today by George Fumich who works with me in his role as a consultant to our University to develop and plan our research programs in mining and mineral resources.

During FY 88, federal funding was awarded to establish the National Research Center for Coal and Energy at West Virginia University. Six million dollars were allocated to that purpose, and Congress expressed its intent to provide an additional nine million dollars in FY 89 to complete the project. West Virginia University is providing a cost-sharing match of nine million dollars, for a total program cost of twenty-four million dollars.

Neil S. Bucklew, President of West Virginia University, has submitted written testimony on April 25, 1988 to this Subcommittee regarding the status of the National Research Center. Please refer to Dr. Bucklew's statement for a status report on our progress and our request for continued funding for this program.

My purpose here today is to discuss other components of our testimony before this Subcommittee regarding programs such as the Consortium for Fossil Fuel Liquefaction Science, the National Mine Land Reclamation Center, the Generic Technology Center for Respirable Dust, and the Mineral Research Institutes Program. The work conducted under these programs is an integral part of our overall research effort at West Virginia University. In all of these programs, we work cooperatively with federal agencies and member schools of the respective consortia which participate in each of the above programs.

We believe that our broadly based research programs integrate closely with national needs and make full utilization of the expertise available throughout our nation. These efforts truly enable us to maintain a national research program in coal and energy.

We urge your continued support for the programs referenced above as part of our national needs and goals for energy independence.

## Concluding Comments

**Thank you, again, Mr. Chairman, for the opportunity to testify before the Subcommittee. We appreciate the support of the Subcommittee for our research programs.**

Senator REID. We will now hear out of order because of a problem with the next witness J. Jackson Walter, who will testify representing the National Trust for Historic Preservation.

It is my understanding you have a personal problem, so if this will benefit you, please go ahead.

### STATEMENT OF J. JACKSON WALTER, PRESIDENT, NATIONAL TRUST FOR HISTORIC PRESERVATION

Mr. WALTER. Mr. Chairman, thank you for allowing me to testify out of order. This is National Preservation Week, and my board is in town. We have a full round of board meetings. I am grateful to the committee for allowing me to appear here today.

For the record I am Jack Walter, president of the National Trust for Historic Preservation. I am pleased to appear here before the committee on behalf of our trustees and now some 215,000 members.

The Congress created the national trust in 1949 to be the leader of the nongovernmental portion of the historic preservation movement, one that is thriving and growing at a very good clip.

With the permission of the Chair, I have already submitted prepared testimony on our appropriation, dated April 15. I hope that that could be made part of the record.

Senator REID. That will be the order.

Mr. WALTER. We have requested an appropriation for fiscal year 1989, Mr. Chairman, of $7.7 million from the historic preservation fund, which as you know was created by the Congress to provide what we might think of as an irreplaceable national resources balance sheet. We are taking funds derived from the leasing of offshore minerals and recycling them into historic resources, a national resources balance sheet, if you will.

Our request for fiscal year 1989 would make possible our partnerships with local historic preservation groups in several important areas.

Rather than detail those for you, because they are in the testimony I would prefer simply to call attention to what might be thought of as the third battle of Manassas, Bull Run, which is being fought out right now not far from where we sit, and point out to you that the Manassas Battlefield National Park issue is one that has captured the attention of people all across the country for a series of reasons which are precisely the reasons for the existence of the national trust and the historic preservation fund.

We are trying very hard at the trust to support a local historic preservation organization in Manassas which is trying to save the battlefield. The national trust has come out strongly against the proposal to create a 1,200,000-square-foot mall on that battlefield. But the point of the testimony is to say that the funds provided to us through the historic preservation fund are what make it possible for the national trust to create partnerships with local historic preservation groups so that we don't get caught unaware as we all were in this particular case.

The lack of funding over the past years has weakened the historic preservation administrative structure so that the planning, consultation, and coordination of local groups that should have prevented this crisis would have protected it. It points to a larger problem: we need the funding as a legal protection and, if you will, the political will to preserve this country's heritage. To do that, we do need adequate funding from the historic preservation fund.

There is a public outcry over this third battle of Manassas which clearly indicates, as did cover stories in Time magazine in the last year on the role of the historic rehabilitation tax credits to bring life back to the cities that the public has the will to support a major commitment to historic preservation.

## PREPARED STATEMENT

We are encouraging full consideration of our request for the coming fiscal year, and we thank you, Mr. Chairman, for your attention this morning.

[The statement follows:]

## STATEMENT OF J. JACKSON WALTER

Mr. Chairman, the National Trust for Historic Preservation welcomes the opportunity to present the views of its membership on fiscal year 1989 funding for the national historic preservation program. Approaching our 40th year we have a diverse and growing membership of 200,000 and a vitally important role in the national historic preservation partnership of federal, state and local governments and private for-profit and non-profit organizations.

As mandated by our 1949 congressional charter and the 1966 National Historic Preservation Act, the National Trust's role in the national historic preservation partnership is to lead the private sector preservation movement to meet current challenges and changing needs. Toward this end, the programs we propose for FY 1989 are designed to build on the National Trust's successful record of pass through grants by programs that: address the large, difficult national issues in the historic preservation field; initiate locally-directed revolving loan pools to forge partnerships of financial institutions, neighborhood groups and preservationists for the protection and restoration of community heritage; provide remedial assistance to the nation's endangered maritime resources; and provide seed money to make expertise available to local communities and to serve as a springboard for fundraising in communities.

We also urge Congress to fully support the work of the State Historic Preservation Offices; their work is not only essential to carrying out the National Historic Preservation Act but is also required to fulfill the requirements of the historic rehabilitation tax credits. It is vitally important that these offices remain strong, professionally staffed and capable of carrying out their responsibilities throughout the fifty states, the territories and the District of Columbia.

The Trust's FY 1989 request is $4.5 million for ongoing activities, $2.5 million for a Preservation Partnership Fund, $350,000 for Maritime Preservation Technical Assistance, and $350,000 for the Preservation Services Fund.

$4.5 million of our request will support the Trust's ongoing Congressionally-chartered responsibilities; these are primarily: technical assistance and field services; public and professional education; and stewardship of historic properties. I include with my testimony a copy of our latest budget; for your purposes, we have also prepared a chart on page 3 showing how our federal funds are used.

Our fiscal year 1988 Congressional appropriation of $4.5 million included an additional $250,000 for the Trust to use to make an equal amount of non-federal funds available for its Critical Issues Fund. The Critical Issues Fund makes grants to projects that address widespread, pressing preservation problems.

For this year we will be focusing the program on: saving endangered non-profit owned and special use historic structures; providing affordable housing opportunities; assessing and communicating the economic impact of preservation; and protecting the character-defining features of local communities.

By the end of this fiscal year, we expect to commit the entire $250,000 that was made available to the Critical Issues Fund by the FY 1988 appropriation. If the Trust receives a fiscal year 1989 appropriation of $4.5 million for our basic programs, we will once again be able make $250,000 available in private funds to replenish the Critical Issues Fund.

Included in the Trust's FY 1989 request are three programs not funded from the fiscal year 1988 appropriation: Maritime Preservation Technical Assistance and the Preservation Services Fund, for which we sought but did not receive federal support last year, and a new initiative, the Preservation Partnership Fund. Each of these is a program of pass through grants to support state and local preservation activities.

We seek $350,000 to establish a program of Maritime Preservation Technical Assistance. Maritime resources are endangered by their own inherent characteristics -- their exposure to the elements and vulnerability to rot and corrosion -- as well as the neglect resulting from changing economic patterns and lack of public and private support. Without timely assistance, many of these scarce resources will be lost forever. Remedial attention is needed.

The requested grant funds will assist a broad range of maritime resources, including ships, shipwrecks, lighthouses and waterfront facilities. The appropriation would fund resource teams of maritime preservation experts and technical assistance grants. These grants will be used to assist financial planning, the development of long-range maintenance programs, and the preparation of plans and specifications needed to implement restoration.

We also seek $350,000 to augment our Preservation Services Fund (PSF) which celebrates its 20th year in 1989. The PSF provides seed money to bolster the preservation work of city and county governments, non-profit preservation organizations, historical societies, house museums and historic district commissions.

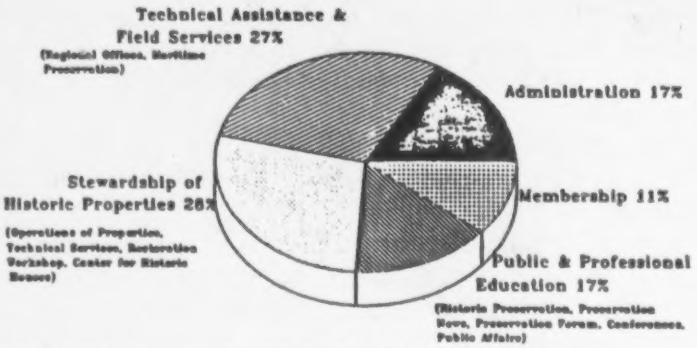
Since the program's inception, the Trust has awarded 1,500 grants totalling $2.1 million, leveraging approximately $10.5 million in private dollars for preservation. These are small grants (the average is approximately $1,500) that leverage outside investments in what are frequently the first historic preservation efforts undertaken by a community. Grants are typically obtained at the beginning of a project to cover expenses such as feasibility studies, architectural drawings and cost estimates.

Finally, we seek $2.5 million to create a Preservation Partnership Fund. This request springs from the recognition that the best in preservation takes place on the local level as a partnership between the private and public sectors and non-profit community groups and lending institutions. This program would stimulate new or expanded local and statewide loan funds to assist the rehabilitation of historic buildings throughout the country. As a result of the program, we expect that between five and fifteen million dollars will be made available in low interest loans.

Through this program, funds would be made available to statewide or local non-profit organizations or government agencies which will be responsible for coordinating the establishment of loan pools with financial institutions and for ensuring that the preservation goals of the program are met. Loans from the National Trust would be matched on at least a one for one basis by local lending institutions or other sources. The program would help create approximately 20 loan pools of $100,000 to $450,000. The loan pools will fund the rehabilitation, according to the Secretary of the Interior's Standards for Rehabilitation, of contributing buildings in National Register listed or eligible historic districts. Rehabilitation of the buildings' principal facade will be the minimum work required by each local fund. Compliance with the Standards will be enforced by the State Historic Preservation Offices.

Over the last two years alone, we were forced to turn down more than $750,000 in grant requests from 160 organizations and had to offer reduced funding to many others. With federal grant support, we will be able to aid more communities in taking vital steps toward the adaptive use of historic resources, developing historic districts, and improved community planning.

We at the National Trust believe the mission of protecting the past for the future is exciting and critically important to our national health. We urge you to recommend that Congress fund adequately the national historic preservation program from the Historic Preservation Fund for fiscal year 1989. Thank you for your consideration of this request.



NATIONAL TRUST FOR HISTORIC PRESERVATION
Use of Federal Funds – FY 1988*

* Budgeted Expenses Allowable for Reimbursement from Historic Preservation Fund Grant

Senator REID. Thank you very much.

We are looking at the battlefield here as you speak. Quite an interesting proposal. It is complicated by the private landholdings.

Mr. WALTER. It is complicated, and, in fact, in some ways, Mr. Chairman, points to the fact that the land immediately adjacent to and in many cases actually the national treasure, the national historic landmarks that are privately owned as well as land immediately adjacent to national parks, is wholly and completely unprotected at the present time by any form—by any form—of Federal legislation.

The only opportunity to protect national historic landmarks or property immediately adjacent to national parks is at the local level. That is asking an awful lot of local jurisdictions to have to carry the ball to protect national resources.

What we are trying to do is to draw the attention of the Congress, and, in fact, we are looking forward to hearings in the near future on some national protective legislation for what turns out to be quite severely threatened and extraordinarily exposed historic treasures of our country.

Senator REID. Thank you very much.

Mr. WALTER. Thank you very much.

Senator REID. Good luck in your meetings today.

## STATEMENT OF DANIEL DARDEN, ON BEHALF OF THE CHITIMACHA TRIBE OF LOUISIANA

Senator REID. We will now hear from Daniel Darden from the Chitimacha Tribe.

Mr. DARDEN. Chairman Reid, committee, and staff, I am Daniel Darden, of the Chitimacha Reservation. We are 600 strong. We are approximately 80 miles west of New Orleans. We have occupied our lands for eternity. We are the only tribe from Louisiana that was originally there. We were there during the occupation by the French, by the Spanish, and, of course, we are still there.

However, we have been a forgotten tribe. Our allocation for funds have been about $13,500 a year for the last few years.

Senator REID. How many Indians are in your tribe? How many were in the tribe? It's 600 now, but what was the largest number in your tribe, do you know?

Mr. DARDEN. We had about 750,000, I understand. We occupied the entire southern part of Louisiana up and down the coast, all the way up to the Mississippi.

Senator REID. Did some of your people go elsewhere?

Mr. DARDEN. No; we went through the marshes. We survived in the marshes with the snakes and the alligators and whatever. We were beaten down to six women, and, of course, we are coming up to 600 strong now, which is miraculous, I think.

Next year I think we will be 13 more strong. We have that many pregnancies on the reservation right now.

I am here to ask today for funds. As I said, we are getting about $13,500 a year for many years since 1932, along in that area. We were the forgotten tribes, and when the new moneys were allocated to the new tribes, they were all pretty well fixed. But again we were forgotten.

However, in 1988 we received $200,000. We asked for $386,000. We got $200,000. I am here today to ask you that next year, 1989, for the $386,000. We need it desperately.

What are we going to do with this money? For instance, since taking over as chairman this July past, we had a little squabble over a piece of property. None of our tribal land inside of the tribe has been surveyed. We only go by what we think is our little piece, my mother's little piece, my uncle's little piece, whatever. We are going to use the money to survey our entire reservation and give each member his piece of paper with his little piece of property.

Adult education. My own father has a third grade education. He has a hard time signing his own name. And so does my mother.

I did a little different. I spent 24 years in the military getting my education, and lived on the other side of the world. But after I retired, I went back to my reservation and I see the need for educating our people. This is the only way we are going to get ahead in this world is to educate ourselves.

Senator REID. Have you conferred with Senator Johnson on this?

Mr. DARDEN. Oh, yes; he has gotten us this far with the money problems we have had.

And our codes, the local sheriff's department and the State police are reluctant to come on our reservation because we are Federally recognized. We do have problems just about every weekend with family squabbles, drinking, et cetera, et cetera. And it is kind of sad that you call the law enforcement people to come and help you break up these things, and they are scared to come out. So, we are going to utilize this money to write the codes and regulations for our tribe.

Just recently we had a robbery in a little store that I opened 6 years ago, and there is no one there to open the store, no policeman in uniform.

We also are located on a small, very narrow road, our school. The kids have to walk to school. We don't have a bus service. We are going to try to utilize this money in ways and means to widen our road, put a sidewalk in where our children can walk to school.

Our reservation is somewhat less than 1 mile long, on the main road. We are also located on the bayou. Erosion is eating us up. I left home in 1949, returned in 1979. We lost about 15 or 18 feet of land. We want to try to utilize some of this money in studying ways to get our bayou side to stop from eroding.

And with this $386,000 we can take care of our own sewer system, which was given to us many years ago but we have no means of maintaining it.

However, we have a lot of things going now. We have a bingo parlor going up, and we will be self-sufficient within the next 3 to 5 years, I think, with the bingo hall going up.

### PREPARED STATEMENT

I see my time is up. I am sorry I bored you so long.

Senator REID. Most interesting. Nice of you to come and inform us. I was especially interested in the little historic background you gave us. Thank you very much.

[The statement follows:]

## STATEMENT OF DANIEL DARDEN

Good morning, Chairman Byrd, members of the Committee and staff. I am Dan Darden, Chairman of the Chitimacha Tribe located in south Louisiana, eighty miles west of New Orleans. Our tribal members number 600 strong with a land base of 300 acres.

In FY 1988 the Bureau's budget request for our tribe was $13,500. We requested from the Appropriations Committee an add-on of $386,000 of which $200,000 was finally appropriated.

The Chitimacha Tribe is requesting an increase of $386,000 over the Department of Interior's FY 1989 budget request for the Chitimacha Tribe of Louisiana.

The members of the Chitimacha Tribe would like to thank you, the Committee and Members of Congress for appropriating the additional $200,000 in FY 1988 for tribe/agency operations. This money will build and expand support in the areas of adult education, law enforcement, social services, child welfare, job training, and other programs designed to reduce unemployment and assist tribal members in becoming self-sufficient.

The add-ons received in FY 1988 were not recurring; therefore the Department of Interior's FY 1989 budget request does not include the $200,000 for the Tribe. The Chitimacha Tribe is therefore seeking to expand upon the support provided in FY 1988 in the areas of Scholarships, Law Enforcement, Social Services, and other programs designed to increase the self-sufficiency of tribal members. We are also requesting that these funds be appropriated on a recurring basis.

Currently, the uncertainty of availability of funds has forced the Tribe to implement a "band-aid" approach consisting of short range goals and objectives. In order to be more effective in meeting long range goals such as reducing unemployment, increasing educational levels, and improving the overall quality of life on the Reservation, the tribal leadership requests an on-going equitable funding base from which to operate.

The following attachments reflect a summary of the current proposed activities for FY 1988, an ongoing funding request for FY 1989, and a comparison of base funding amounts for tribes of comparable size to Chitimacha.

### BRIEFING PAPER ON CHITIMACHA TRIBE FUNDING

Major Issue: Funds added to Chitimacha programs in FY 1987 ($26,400 in New Tribes adjustment) and FY 1988 ($200,000 Congressional increase) have not been added to the Tribe's Indian Priority System base as recurring funds. The Tribe does not believe this to be equitable or responsive to Congressional direction.

Discussion: In FY 1987 the Chitimacha Tribe of Louisiana had an Indian Priority System funding base of $13,500. At this level no funds were available to operate such basic programs as Adult Education, Law Enforcement, Adult Vocational Training and Aid to

Tribal Government. In an effort to equitably fund the needs of this Tribe, the Area Office submitted a request to Central Office for $200,000 to be re-allocated within the Bureau's total Indian Priority System base. Central Office attempted to respond by allocating $26,400 in undistributed New Tribes money. Attempts by the Area Office to make this FY 1987 amount a permanent adjustment to the Tribe's Indian Priority System base were unsuccessful although New Tribe's money is generally considered an addition to a Tribe's base.

In FY 1988 the Tribe notified their Congressional delegation of their financial situation. Based on comparative funding information of Tribes provided by Central Office, the Senate Appropriations Committee recommended an increase of $386,000 for the Chitimacha Tribe. This figure was reduced to $200,000 during the FY 1988 Appropriations process. The Area Office was recently notified by Central Office that, contrary to Congressional intent, this adjustment of $200,000 would not be added to the Tribe's base in FY 1989 and subsequent years. Although the Area Office has made an internal adjustment of $50,000 for Law Enforcement which increases the Tribe's Indian Priority System base in FY 1989 to $60,600, this still is not adequate to meet Tribal needs.

Recommendation: The Central Office should seriously reconsider the adjustment of the Tribe's Indian Priority System base to add both the FY 1987 internal redistribution ($26,400) and the FY 1988 Congressional increase ($200,000) from existing Bureau Indian Priority System funding.

## CHITIMACHA TRIBE

## FACT SHEET

The Chitimacha Tribe, like many south and east cost tribes, was federally recognized early in this century, 1916.

Many of the tribes on the east and south cost of the United States were historically, forgotten by the Bureau of Indian Affairs for most of the current century.

From 1934 to 1972, the only funding the Chitimacha Tribe received was funding to operate a BIA school. Other federally recognized tribes throughout the country were receiving a broad range of social, health, governmental, judicial and other community services during this same period.

It was only in the early 1970's that the Chitimacha Tribe began to receive any BIA funding over and above BIA school operations funding.

In FY 1972, the BIA scrapped together whatever leftover funds they had which amounted to less than $24,000 and split that funding between the Chitimacha Tribe and one other southeastern tribe which the BIA had also historically failed to fund. The scraps from the table funding from the BIA has become the "base" Indian service funding for the Chitimacha Tribe ever since. According to BIA officials, past and present, once a tribe's base funding is established, regardless of how inequitable it is, that base funding is used year after year with only minor percentage adjustments up or down based upon percentage increases or decreases in the overall national program funding.

Newly recognized or "acknowledged" tribes being acknowledged as federally recognized for the first time through the BIA Federal Acknowledgment Process (FAP) receive specially earmarked appropriations in the Indian Services budget for "new tribes" funding.

The Chitimacha Tribe, although forgotten by the BIA for many years, was not a newly acknowledged tribe and thus did not, and does not technically qualify for new tribes funding. As a result, their base Indian Services budget is strictly a consequence of what meager funds were left over.

One newly acknowledged tribe with a smaller population and land base than the Chitimacha Tribe has $550,000 in new tribes Indian Services funding earmarked for it in FY'88. Another "new tribe" has $1.5 million earmarked for it. The Chitimacha Tribe has been recognized since 1916 but only funded $13,500 for FY 1989 in its Indian Services funding base.

The Chitimacha Tribe has been doing without almost all of the services and programs which newly recognized tribes will be getting.

Thank you, Mr. Chairman, for your consideration of our request, so necessary to the economic and social well-being of our tribe.

## SUMMARY OF THE CURRENT PROPOSED ACTIVITIES FOR FY'88

With the $200,000 add-on funding appropriated for FY'88, the Chitimacha Tribe has opted to contract the following programs with the Bureau of Indian Affairs:

Aid to Tribal Government - $90,000
Community Services General - $15,000
Real Estate Services - $16,400
Rights Protection - $13,600
Scholarship Program - $5,000
Community Fire Protection - $10,000
Law Enforcement Program - $50,000

The purpose of the Chitimacha Aid to Tribal Government Program is to develop and maintain an effective tribal governmental infrastructure from which to operate tribal programs. Through the ATG Program, the tribe will refine its administrative policies and procedures, ensure the effective execution of tribal ordinances, coordinate the delivery of tribal government operations and services and establish tribal priorities and action plans.

The purpose of the Community Services General Program is to provide administrative support and coordination to the Tribe's Indian Services Programs (i.e. Law Enforcement, Housing, Aid to Tribal Government).

The purpose of the Chitimacha Real Estate Services Program is to provide for the management, development, proper utilization and enhancement of tribal trust lands. These funds will provide for boundary surveys, the development of surface and sub-surface leasing ordinances for tribal lands, and ensure compliance with same.

The purpose of the Chitimacha Rights Protection Program is to provide the professional assistance necessary in pursuing the protection of Chitimacha Tribal Indian rights (i.e. the timely resolution of Chitiamcha rights issues including trespass, taxation, utility regulation and right-of-ways).

The Chitimacha Community Fire Protection Program will provide fire protection services to community residents by establishing a community volunteer fire department, protecting against fires, and maintaining existing fire equipment in good repair.

The Chitimacha Law Enforcement Program will provide for the development of tribal law and order codes and the purchase of equipment necessary to provide protection to reservation residents.

The purpose of the Chitimacha Scholarship Program is to supplement eligible Chitimacha Indian student's financial higher education needs.

## FY'89 FUNDING REQUEST

AID TO TRIBAL GOVERNMENT - $100,000
Purpose: To enhance tribal self-determination by developing and maintaining an effective tribal governmental infrastructure from which to operate tribal programs and generate viable economic development opportunities on the Reservation.

COMMUNITY SERVICES GENERAL - $15,000
Purpose: To provide administrative support and coordination between the Tribe's Indian Service Programs (i.e. Aid to Tribal Government, Law Enforcement, Housing, Social Services) in order to ensure a comprehensive approach to service delivery.

SOCIAL SERVICES - $20,000
Purpose: To provide to tribal members, guidance and casework services including parenting skills training, alcohol and drug rehabilitation, and developing self-assistance initiatives emphasizing work alternatives as opposed to welfare.

LAW ENFORCEMENT - $100,000
Purpose: To provide law enforcement and public safety on the Chitimacha Reservation, over which the local authorities have no jurisdiction.

TRIBAL COURT - $20,000
Purpose: To develop and maintain an effective Indian court system to determine violations of tribal law and resolve tribal divil disputes.

COMMUNITY FIRE PROTECTION - $20,000
Purpose: To maintain a volunteer fire department on the Chitimacha Reservation. (The Tribe has applied for funding from another source to pay for the building and fire engine, but has no funds for maintenance and support).

REAL ESTATE SERVICES - $30,000
Purpose: To provide for the management of the Tribe's real property, research title records and administer boundary surveys.

REAL ESTATE APPRAISALS - $8,000
Purpose: To provide for documented real estate appraisal reports to support estimates of market value, rental value and just compensation for future land acquisition for the Tribe's economic development activities.

RIGHTS PROTECTION - $15,000
Purpose: To provide for the protection of the Tribe's rights to the use of their federal trust lands.

MINERALS AND MINING - $6,000
Purpose: To pay for research to determine the extent of mineral resources on the Reservation.

WILDLIFE AND PARKS - $6,000
Purpose: To plan for the development and utilization of outdoor recreation resources.

ADULT EDUCATION - $20,000
Purpose: To provide direct instruction services to Chitimacha adults to enable them to complete high school graduation requirements and acquire basic literacy skills. These funds will also provide for continuing education courses.

SCHOLARSHIPS - $26,000
Purpose: To provide financial assistance for eligible Chitimacha Indians' higher educational needs.

## FY'88 Base Funding of Tribes of Comparable Size

| | |
|---|---|
| Chitimacha Tribe of Louisiana | $13,500 |
| Tunica-Biloxi Tribe | $125,500 |
| Coushatta Tribe | $211,400 |
| Miccosukee | $661,700 |
| Maliseet | $208,200 |
| Pequot | $351,100 |

INDIAN PRIORITY SYSTEM

FY: 1983

AREA TOTALS FOR TARGETS WITHIN AREA EASTERN
SHOWING TARGET 1 FOR DIR. OPS., TARGET 2 FOR FIELD OPS., AND TARGET 2 FOR TRIBES/AGENCIES
AREA AND TRIBE/AGENCY DATA

| LINE | PROGRAM TITLE | CHOCTAW S74-01 | | TUNICA-BILOXI S78-02 | | LOUISANA F.O. S78-03 | | CHITIMACHA S78-12 | | COUSHATTA S78-26 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | SCHOLARSHIPS | 35.0 | .0 | .0 | .0 | .0 | .0 | 5.1 | .0 | 21.7 | .0 |
| 12 | ADULT EDUCATION | 166.9 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 13 | TRIBAL CONTROLLED COMM. COLLEGES | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 15 | COMMUNITY SERVICES, GENERAL | .0 | .0 | 66.1 | .0 | .0 | .0 | 3.9 | .0 | .0 | .0 |
| 16 | AGRICULTURE EXTENSION SERVICES | 70.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 17 | COMMUNITY FIRE PROTECTION | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 18 | OTHER AID TO TRIBAL GOVERNMENT | 45.0 | .0 | 35.4 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 20 | TRIBAL COURTS | 161.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 21 | SOCIAL SERVICES | 194.4 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 22 | LAW ENFORCEMENT | 743.7 | .0 | .0 | .0 | 69.2 | .0 | .0 | .0 | .0 | .0 |
| 23 | SELF-DETERMINATION - GRANTS | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 24 | SELF-DETERMINATION - T & TA | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 25 | ADULT VOCATIONAL TRAINING | 100.1 | .0 | 1.0 | .0 | .0 | .0 | .0 | .0 | 15.1 | .0 |
| 26 | OTHER EMPLOYMENT ASSIST. (D.E.) | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 27 | CREDIT AND FINANCING | 65.9 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 28 | ROAD MAINTENANCE | 105.0 | 5.0 | 11.9 | .0 | .0 | .0 | 1.2 | .0 | 73.1 | .0 |
| 29 | *GENERAL OPERATIONS, SUBTOTAL* | 1717.0 | 5.0 | 117.4 | .0 | 69.2 | .0 | 12.6 | .0 | 109.9 | .0 |
| 30 | NATURAL RESOURCES, GENERAL | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 31 | AGRICULTURE | 11.2 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | 100.0 | .0 |
| 34 | TIMBER SALE MANAGEMENT | 46.7 | 2.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 35 | FOREST MGMT. INVENTORIES & PLANS | 33.0 | 3.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 36 | FOREST DEVELOPMENT | 7.3 | 1.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 37 | FOREST PROTECTION | 42.2 | 4.0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 38 | FOREST PGM MGMT (RELATED FUNCT.) | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 40 | WATER RESOURCES | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 41 | ANADROMOUS FISHERIES MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 42 | GREAT LAKES FISHERIES MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 43 | INLAND FISHERIES MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 44 | WILDLIFE MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 45 | OUTDOOR RECREATION MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 46 | FISH HATCHERY OPERATIONS & MAINT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 47 | FISH/WLDLF RESOUR UTIL MGT, ET AL | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 48 | MINERALS AND MINING | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 50 | TRUST SERVICES, GENERAL | .0 | .0 | 7.2 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 51 | ENVIRONMENTAL QUALITY SERVICES | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 52 | OTHER RIGHTS PROTECTION | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 53 | REAL ESTATE APPRAISALS | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |

INDIAN PRIORITY SYSTEM

FY: 1983

AREA TOTALS FOR TARGETS WITHIN AREA EASTERN
SHOWING TARGET 1 FOR DIR. OPS., TARGET 2 FOR FIELD OPS., AND TARGET 2 FOR TRIBES/AGENCIES
AREA AND TRIBE/AGENCY DATA

| LINE | PROGRAM TITLE | CHOCTAW S78-01 | | TUNICA-BILOXI S78-02 | | LOUISANA F.O. S78-03 | | CHITIMACHA S78-12 | | COUSHATTA S78-24 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | OTHER REAL ESTATE SERVICES | 79.4 | .8 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 59 | *TRUST OPERATIONS, SUBTOTAL* | 217.8 | 10.8 | 7.2 | .0 | .0 | .0 | .0 | .0 | 100.0 | .0 |
| 65 | NEW DIRECT RENTAL OF FACILITIES | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 66 | NEW GSA RENTAL OF FACILITIES | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 69 | *FACILITIES OPERS., SUBTOTAL* | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 70 | EXECUTIVE DIRECTION | 71.5 | 1.7 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 72 | ADMINISTRATIVE SERVICES | 81.3 | 3.4 | .9 | .0 | 89.3 | 3.0 | .9 | .0 | 1.5 | .0 |
| 74 | SAFETY MANAGEMENT | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 | .0 |
| 79 | *MANAGEMENT OPERS., SUBTOTAL* | 152.8 | 5.1 | .9 | .0 | 89.3 | 3.0 | .9 | .0 | 1.5 | .0 |
| 99 | *** FY 1983 - GRAND TOTALS *** | 2087.6 | 20.9 | 125.5 | .0 | 138.5 | 3.0 | 13.3 | .0 | 213.4 | .0 |

Senator REID. We will now hear from Alan White Lightning of the Standing Rock Sioux Tribe.

[No response.]

Senator REID. He does not appear to be here.

We will hear then from Michael Allen, of the Lac du Flambeau Tribe.

## STATEMENT OF MICHAEL ALLEN ON BEHALF OF LAC DU FLAMBEAU BAND OF LAKE SUPERIOR CHIPPEWA INDIANS

Mr. ALLEN. Good morning.

Senator REID. You are up on the Great Lakes?

Mr. ALLEN. Yes; the Flambeau Reservation.

Mr. Chairman, my name is Michael Allen. I am the chairman of the Lac du Flambeau Tribe. We welcome this chance to share with you our views facing our tribe and suggestions for meeting those needs.

I will begin with the Fish and Wildlife Management Program. Over the past several years we have responded to the fishery needs, and as a result we have developed a successful program featured by the BIA as a model. We now operate expanded fishery facilities from which we stock our lakes for tribal members and non-Indians alike. We generate revenue from this program through the sale of surplus fish.

This year we are seeking funding for all three program components. The total requirement is $587,000. We also ask that the whole amount be specifically for the Lac du Flambeau. This year the BIA budget has dropped, and there is one aggregate figure for fish and wildlife at the agency level. This can only be increased from other programs.

Our request is a line item for the wildlife and fish programs in the amount of $587,000.

On law enforcement, despite the tribe's court system and extensive codes and ordinances, and despite the BIA's withdrawal of its proposed rule to block law enforcement funding in Public Law 280 States, we have still made no progress in obtaining BIA law enforcement funding. Our need has become more acute now that we have exclusive traffic jurisdiction over members.

For the past 4 years we have funded our own law enforcement program from an Indian Claims Commission judgment. The fund will be exhausted in fiscal year 1989. We have two officers, assistance from the former chief deputy of our county, and operate under a police commission with non-Indian representation. This program has been the key to revival of our tribal court. It will come to nothing if we can't obtain fiscal year 1989 funds.

Only Congress can overcome BIA reluctance to fund law enforcement in our context. We have already equipped our department and ask only for operational funds for fiscal year 1989 of $97 million, specifically designated for Lac du Flambeau.

In health care, Indian health care has always been underfunded, and Indians still rank far below the norm in health. We have had to roll the funding cuts of recent years so that our program has been cut to the bone. We have eliminated eight positions over the last 2 years, and have run out of alternatives to reduce costs without sacrificing health.

There has been much discussion of the IHS 10/75 initiative to contract out 75 percent of IHS programs in 10 years. We agree with the initiative, but note the irony that Wisconsin's 638 services are cutting those services drastically in the midst of the initiative. That makes no sense.

We recommend the following:

That overall IHS funding must be increased;

That tribal input and contracting should be a real priority, given more than lip service, with great funding preference going to the service sites;

And that pay increases for 638 staff beyond the contract base are a must if we are to retain staff. Federal pay raises in IHS don't help.

PREPARED STATEMENT

As to roads, the tribe operates a road maintenance program for over 70 miles of tribal roads. BIA has shifted this funding off the band to a nonpriority item. We need to see roads restored to a banded priority.

Senator REID. We appreciate your testimony.

I was interested in the work you are doing with fisheries. We have a large lake, and we are trying to help the Pyramid Lake Indians. That looks like something that we can study. Thank you very much.

Mr. ALLEN. Thank you.

[The statement follows:]

## STATEMENT OF MICHAEL ALLEN

Mr. Chairman, distinguished Committee members, I am Michael Allen, President of the Lac du Flambeau Band of Lake Superior Chippewa of Wisconsin. We welcome this chance to share with you our views on the needs facing our Tribe and our suggestions for meeting those needs. (Attached are written materials supporting our requests.)

### FISH AND WILDLIFE MANAGEMENT

Over the past four years, you have responded to our fisheries management needs, and as a result we have developed a successful program widely featured by the BIA as a model. We now operate expanded fish rearing facilities from which we stock our lakes for tribal members and non-Indians alike. We continue to generate revenue from this program through the sale of surplus fish.

The time has come to address tribal needs in other natural resource areas as well. A comprehensive program must have three components: Fisheries, Wildlife, and Conservation Enforcement.

We have been successful in securing funding only for fisheries, and even there the subcommittee FY 1988 add-on was not added to the BIA base budget request for FY 1989.

This year we are seeking funding for all three program components. The total required is $587,000.00. About 80% would go to fisheries, but we could at least get started on the other two with a small wildlife staff and one warden. This requires $353,000.00 beyond the base amount in the BIA FY 1989 budget.

We also ask that the whole amount be specifically for Lac du Flambeau. This year the BIA budget has dropped the specific tribal identifications and has just one aggregate figure for fish and wildlife, to be parcelled out at the agency level. This can only increase our past funding problems, and we oppose this move.

In sum, we are requesting a line item among the special Fish and Wildlife Programs (p. 134f in the BIA budget) for the Lac du Flambeau program, in the amount of $587,000.00, by backing out our base amount ($234,000.00) and adding to it ($353,000.00). We would also like you to reinstate the cyclical maintenance and rehabilitation funds in FY 1989 for the tribal hatchery system.

### LAW ENFORCEMENT

Despite the Tribe's court system and extensive codes and ordinances, and despite BIA's withdrawal of its proposed rule to block law enforcement funding in "P.L. 280" states, we have still made no progress in obtaining BIA law enforcement funding. Our need has become more acute now that we have exclusive traffic jurisdiction over members.

For the past four years we have funded our own law enforcement program from an Indian Claims Commission judgment. The fund will be exhausted in FY 1989. We have two officers, assistance from the former chief deputy of our county, and operate under a police commission with non-Indian representation. This program has been the key to revival of our Tribal Court. It will come to nothing if we can't obtain FY 1989 funds.

Only Congress can overcome BIA reluctance to fund law enforcement in our context. We have already equipped our Department and ask only for operational funds for FY 1989 of $97,000.00, specifically designated for Lac du Flambeau.

## HEALTH CARE

Indian health care has always been underfunded, and Indians still rank far below the norm in health. We have had to roll the funding cuts of recent years, so that our program has been cut to the bone. We have eliminated eight positions over the last two years, and have run out of alternatives to reduce costs without sacrificing health.

There's been much discussion of the IHS "10/75 Initiative" to contract out 75% of IHS programs in 10 years. We agree with the initiative, but note the irony that Wisconsin's 638 services are cutting those services drastically in the midst of the Initiative. That makes no sense.

We recommend.

1. Overall IHS funding must be increased.
2. Tribal input and contracting should be a real priority, given more than lip service, with great funding preference going to the service sites.
3. Pay increases for 638 staff beyond the contract base are a must if we are to retain staff. Federal pay raises in IHS don't help.

## ROADS

The tribe operates a road maintenance program for over 70 miles of tribal roads. BIA has shifted this funding "off the Band" to a non-priority item. We need to see roads restored to a banded priority.

## FUNDING TESTIMONY

## LAC DU FLAMBEAU BAND OF LAKE SUPERIOR CHIPPEWA INDIANS NATURAL RESOURCE DEPARTMENT

## FY 1989

The Lac du Flambeau Band of Lake Superior Chippewa Indians has been developing a comprehensive Natural Resource Department to include a Fisheries Program, Wildlife Program, and Conservation Law Enforcement Program. The Department has been established by various funding sources with the Bureau of Indian Affairs being one of the major sources. Through the years, the BIA funding started to decrease as the Tribal Natural Resource Department has been trying to expand its services to the tribal people.

In FY 1989, the estimated funding allocation for Lac du Flambeau Tribal Fish Hatchery Operations and Inland Fisheries Management is $233,500.00. This is a 54% reduction in funding when compared to $429,500.00 which was allocated in FY 1988 for the Tribal Fisheries Program. The Lac du Flambeau Band has lobbied in Washington, D.C. to increase funding at the tribal level for the Natural Resource Department and received $150,000.00 add-on in FY 1988. The FY 1988 add-on was appropriated for fisheries enhancement which neglected the tribe's funding request for the Conservation Law Enforcement and Wildlife Programs. Funds for the Conservation Law Enforcement and Wildlife Programs are non-existent in the FY 1989's Bureau of Indain Affairs budget.

It must be pointed out the $233,500.00 is based on BIA planning figures and does not assure the Tribe will receive this amount since no specific language within the FY 1989 BIA Wildlife and Parks budget exists, to direct the allocation to the Lac du Flambeau Tribal Natural Resource Department.

At this point, it is essential to clearly show the financial need the Lac du Flambeau Band of Lake Superior Chippewa Indians must have to operate a comprehensive Natural Resource Department to include Fisheries (fish culture, fisheries management, fisheries research), Wildlife (wildlife development), and Conservation Law Enforcement.

Table 1 indicates $586,817.00 (direct cost) is required to operate a three program Natural Resource Department. The $586,817.00 is strictly salary, fringe, and operational expenses based on the trained personnel employed by the programs, and operational expenses which have been projected from previous expenditures. The total allocation which would be required if a 15% indirect cost is calculated totals $674,840.00 ($586,817.00 x 0.15 = $88,023.00). The 15% indirect costs equal $88,023.00. Refer to Table 1 which lists the program, personnel requirements, and program expenses required to operate the Lac du Flambeau Band of Lake Superior Chippewa Indians Comprehensive Natural Resource Department in FY 1989.

As previously stated, the funding for operating the Department has not kept up with the development. Table 2 compares the FY 1989 Bureau of Indian Affairs allocation with the actual expenses. As indicated, $586,817.00 of direct cost is required, approximately $233,500.00 is allocated through BIA funding and $353,317.00 reflects the additional funding required to operate a comprehensive Department. Only 40% of the required expenses is available through BIA funding (excluding indirect costs).

It should be noted that the Tribal Natural Resource Department, primarily through Fisheries Earned Revenues, has been contributing to the development and will continue to do so. The Tribe has made the natural resource one of the major priorities which limits the amount of fish which could be sold. Stocking quotas for reservation waters must be met and only excess production is available for sale. The amount of fish for sale will only increase in proportion to an increase in program development through increased funding, program efficiency, and the continued expansion of the fish rearing facilities.

In summary, the Lac du Flambeau Band is requesting that $353,317.00 be added on to the Bureau of Indian Affairs Wildlife and Parks base budget for a total of $586,817.00 and the base budget be specifically designated to the Lac du Flambeau Natural Resource Department. It is imperative specific language within the FY 1989 and future budgets express that base monies are to be appropriated to the Lac du Flambeau Tribal Natural Resource Department.

Additionally, the tribe would like to request the Senate Appropriations Subcommittee of Interior and Related Agencies to reinstate the Tribal Hatchery System and the Fish Hatchery Cyclical Maintenance and Rehabilitation Appropriations in the FY 1989 and future budgets. These funds are essential in protecting tribal and federal governments' investments in their hatchery systems.

TABLE 1. Lists the programs, personnel requirements and expenses required to operate the Lac du Flambeau Band of Lake Superior Chippewa Indians Comprehensive Natural Resource Department in FY1989.

| PROGRAM | NO. OF EMPLOYEES | SALARIES AND FRINGE[a] | OPERATIONAL[b] | TOTAL |
|---|---|---|---|---|
| Fisheries | 15 | $303,705.00 | $163,533.00 | $467,238.00 |
| Wildlife | 3 | 47,647.00 | 25,656.00 | 73,303.00 |
| Conservation Law Enforcement | 1.5 | 30,080.00 | 16,196.00 | 46,276.00 |
| TOTAL | 19.5 | $381,432.00 | $205,385.00 | $586,817.00[c] |

[a] Salary and Fringe equals 65% of total budget.

[b] Operational expenses equals 35% of total budget.

[c] The $586,817.00 does not reflect the 15% indirect cost. The total needed allocation for FY1989 is $586,817.00 plus $88,023.00 which equals $674,840.00.

TABLE 2. A comparison between FY1989 BIA's allocation with the actual program operation expenses. The required increase reflects the additional funding requested to operate a Comprehensive Tribal Natural Resource Department in FY1989.

| PROGRAM | ACTUAL PROGRAM EXPENSES FOR FY1989 | BIA ALLOCATION FOR FY1989 | REQUIRED INCREASE FOR FY1989 BIA FUNDING |
|---|---|---|---|
| Fisheries | $467,238.00 | $233,500.00 | $233,738.00 |
| Wildlife | 73,303.00 | .00 | 73,303.00 |
| Conservation Law Enforcement | 46,276.00 | .00 | 46,276.00 |
| TOTAL | $586,817.00[a] | $233,500.00 | $353,317.00 |

[a] The $586,817.00 does not reflect the 15% indirect cost. The total needed allocation for FY1989 is $586,817.00 plus $88,023.00 which equals $674,840.00.

## Lac du Flambeau Band of Lake Superior Chippewa Indians Natural Resource Department Narrative for FY 1989 Funding

The objective of the narrative is to describe to appropriate committee members the reasons the Lac du Flambeau Band of Lake Superior Chippewa Indians is requesting an additional $353,317.00 for the Natural Resource Department in FY1989. The additional funds plus the base budget will total $586,817.00 of direct costs.

As previously stated in testimony before Honorable Sidney Yates, Chairman of the House Appropriations Subcommittee on Interior and Related Agencies on March 2, 1988, the Tribal Natural Resource Department consists of three programs:

1. Fisheries (Fish Culture; Fish Management)
2. Wildlife
3. Conservation Law Enforcement

The main objective of all the programs is to conserve the natural resources on the 144 square mile reservation for future generations.

The Fisheries Program consists of fish culture and fisheries management sections. The Fish Culture Section produces walleye, muskellunge, northern pike, white suckers, fathead minnows, brown trout, brook trout and rainbow trout. The fish are produced for stocking into reservation lakes and streams. Excess production is sold and the revenues generated are used to support the Natural Resource Department.

The Fisheries Management Section is designed to determine the status of the fisheries resource in 150 lakes (20,000 acres of surface water) and 34 miles of streams. Questions such as "What species are predominant in the food chain?", "Does the 5-6 inch walleye fingerlings stocked contribute to the fisheries?", and "What is the harvest mortality?", are answered by using numerous fisheries management techniques. The techniques used are electrofishing, creel surveys, shore seining, age and growth, mark and recapture, etc.

A brochure is attached which describes the Fisheries Program and facilities in more detail. Table 1 indicates the lakes stocked, species stocked, numbers, size and market value.

Even though the Fisheries Program receives most of the publicity, the Tribe also has Wildlife and Conservation Law Enforcement Programs, in spite of very limited funding. The Wildlife Program is approximately three years old and conducts numerous game management surveys. The surveys include deer, bear, grouse, osprey, eagle, rabbit, hare and waterfowl. The data collected is used to determine the status of wildlife populations on the reservation and to formulate management plans. Because of the lack of funding it has been very difficult to implement management plans which can enhance the wildlife resources. Implementation of deer and Powell Marsh management plans would greatly enhance deer and waterfowl.

The Conservation Law Enforcement Program is also approximately three years old. The main objectives of the program are to enforce and develop conservation codes, laws and ordinances which regulate tribal members and to coordinate law enforcement activities with the Wisconsin Department of Natural Resources and Federal wardens. The program was established by using tribal monies (Indian Monies Proceeds of Labor (IMPL)). The Tribe has expended its own money because they realize the importance of Conservation Law Enforcement and wanted to show the Federal Government the need for such a program on the reservation. Unfortunately, the IMPL funding was only for three years, so the program is in need of more funds to continue.

The Natural Resource Department, primarily through fisheries earned revenues, has contributed to the development of the programs by purchasing much needed equipment, field supplies, office supplies, fish food, chemicals, etc. The Department has budgeted in FY1988, $45,358.00 of fisheries earned revenues to assist in the operation and maintenance of all the programs.

The amount of fisheries earned revenues is limited due to fish management and stocking requirements. Only excess production can be sold as per direction from the Tribal Council. Excess production is fish available after all stocking objectives have been met. The monetary value of all the fish stocked and sold equals $428,943.00 as per the tribe's 1987 price list. Table 1 indicates the market value of the fish stocked.

The Natural Resource Department has the potential to produce over $300,000.00 dollars of fish. If all these fish were sold, it would be at the expense of the fisheries resources on the reservation. The fish stocked are worth more than fish sold on the "fin". Fish stocked impacts future broodstock populations, assures fish for future generations to enjoy, affects the tourism and sportfishing industries.

The Natural Resources Department contributes to the overall economic development of the tribal community directly by selling excess production and indirectly by managing reservation waters and lands which contribute to the tourism and sportfishing industries.

The Lac du Flambeau Reservation is located in Vilas County, Wisconsin. According to the 1987 Vilas County Vacationer's Survey, people choose Vilas County for fishing, scenic beauty, boating, snowmobiling, skiing, camping, community activities, business, golf and hunting (See attached survey). The average amount of money spent per family per week was $670.00 and fishing and scenic beauty were the main reasons for vacationing in Vilas County. Since fishing and scenic beauty are the biggest draws to the area, it is important to maintain balanced fish and game populations on the reservation. This will maintain the reasons why people utilize the resource and spend money in Vilas County, thus Lac du Flambeau. The only way to have balanced fish and game populations is to have a comprehensive Natural Resource Department.

Another way the Department contributes to the area's economy is by using the funds obtained to maintain and operate the programs and spending it in area businesses. From April 1, 1987 to February 16, 1988 the Natural Resources Department has spent $92,609.00 in 65 businesses. The amount of money spent in 18 Lac du Flambeau businesses was $16,155.00 and $76,454.00 in 47 other "Northwoods" businesses. Since March 1, 1984, the Department has spent $526,327.00 in the area. The above amounts do not include salary and fringe of the 21 individuals working in the program. Program personnel are also spending money in local establishments and paying federal income tax.

As stated above, 21 individuals are employed by the Natural Resource Department. All programs provide professional and technical work for tribal employees, which enhances self-esteem and self-confidence. The programs provide an opportunity to conserve the natural resources through hard work and coordinated efforts. This is another reason continued funding is necessary.

In summary, the Tribal Natural Resource Department's major responsibilities are to protect, conserve and manage the natural resources on the reservation by using various fish, game and conservation law enforcement management techniques. As the department develops and matures, and fish, game and conservation law enforcement management plans and objectives are met, tribal economic development and self-sufficiency will be realized directly or indirectly by efforts put forth by the programs.

## 1987

# VILAS COUNTY VACATIONERS SURVEY

In an effort to keep informed on the desires and wants of vacationers, and to determine the effectiveness of the Vilas County advertising program, a random sample survey was sent to individuals who inquired of the county for more information.

Names were taken at random from those who inquired of the county for information from each of the sources listed below.

1. **Wisconsin Trails Magazine** - These inquiries were generated as a result of a return card in the May/June 1987 issue indicating Vilas County is a four season playground located in Wisconsin's Northwoods.

2. **Milwaukee Journal Ads** - These inquiries were generated as a result of various ads run in the Milwaukee Journal in January through May 1987.

3. **Vilas County Chamber of Commerce** - These inquiries were generated by various publicity articles and listings, and were received January through April 1987.

4. **Milwaukee Journal Wisconsin Magazine Section** - These inquiries were generated as a result of a Vilas County ad with a return coupon in the April 12, 1987 Milwaukee Journal Wisconsin Magazine (a supplement in the Sunday Milwaukee Journal).

One hundred surveys were sent out to each of the above sources.

Compiled by: Eugene A. Radloff, Vilas County UW-Extension Resource Agent, Courthouse, PO Box 369, Eagle River, WI 54521, Phone (715) 479-3648. February 1988.

**VILAS COUNTY VACATIONERS SURVEY RESULTS -- 1987.**

| | Wisconsin Trails Magazine | Milw. Journal | Chamber of Commerce | Milw. Journal Wisconsin Magazine | Average of all Replies |
|---|---|---|---|---|---|
| **Did you visit the Vilas County area on vacation in the last year?......** | | | | | |
| Yes | 50.0% | 63.4% | 75.0% | 37.1% | 57.0% |
| No | 50.0% | 36.6% | 25.0% | 62.9% | 43.0% |
| **If yes, how many days did you spend in the Vilas County area last year?......** | | | | | |
| Average No. of days | 9.6 | 11.4 | 9.1 | 7.7 | 9.7 |
| When? | | | | | |
| January | --- | --- | 5.7% | --- | 1.9% |
| February | --- | --- | --- | --- | --- |
| March | --- | --- | --- | --- | --- |
| April | --- | 3.9% | --- | --- | 1.0% |
| May | 16.1% | 7.7% | 8.6% | 6.7% | 10.3% |
| June | 16.1% | 11.5% | 8.6% | 6.7% | 11.2% |
| July | 35.5% | 34.6% | 25.7% | 40.0% | 32.7% |
| August | 6.5% | 26.9% | 25.7% | 20.0% | 19.6% |
| September | 12.9% | 11.5% | 11.4% | 26.6% | 14.0% |
| October | 9.7% | 3.9% | 5.7% | --- | 5.6% |
| November | --- | --- | --- | --- | --- |
| December | 3.2% | --- | 8.6% | --- | 3.7% |
| **How many vacations did you take in the last year?......** | | | | | |
| Major (a week or more) | | | | | |
| 1 | 64.0% | 63.0% | 55.5% | 52.6% | 58.9% |
| 2 | 16.0% | 18.5% | 27.8% | 21.1% | 21.5% |
| 3 | 20.0% | 18.5% | 5.6% | 10.5% | 13.1% |
| 4 | --- | --- | 8.3% | 10.5% | 4.7% |
| 5 | --- | --- | 2.8% | --- | .9% |
| 10 | --- | --- | --- | 5.3% | .9% |
| Minor (several days-long weekend, etc.) | | | | | |
| 0 | --- | 4.8% | 6.9% | 14.3% | 6.4% |
| 1 | 30.4% | 28.5% | 24.1% | 14.3% | 24.5% |
| 2 | 21.7% | 28.5% | 20.7% | 19.0% | 22.2% |
| 3 | 17.4% | 14.3% | 13.8% | 23.9% | 17.0% |
| 4 | 17.4% | 14.3% | 6.9% | 19.0% | 13.8% |
| 5 | --- | 4.8% | 10.3% | 9.5% | 6.4% |
| 6 | 8.7% | 4.8% | 10.3% | --- | 6.4% |
| 7 | 4.4% | --- | --- | --- | 1.1% |
| 8 | --- | --- | 3.5% | --- | 1.1% |
| 10 | --- | --- | 3.5% | --- | 1.1% |
| **Was the literature you requested adequate?.....** | | | | | |
| Yes | 93.8% | 91.7% | 96.7% | 100.0% | 95.1% |
| No | 6.2% | 8.3% | 3.3% | --- | 4.9% |
| **Was it accurate?.....** | | | | | |
| Yes | 100.0% | 88.0% | 96.7% | 100.0% | 95.1% |
| No | --- | 12.0% | 3.3% | --- | 4.9% |

**VILAS COUNTY VACATIONERS SURVEY RESULTS -- 1987.**

| | Wisconsin Trails Magazine | Milw. Journal | Chamber of Commerce | Milw. Journal Wisconsin Magazine | Average of all Replies |
|---|---|---|---|---|---|
| Did you receive the literature promptly?..... | | | | | |
| Yes | 100.0% | 96.0% | 100.0% | 81.8% | 96.4% |
| No | --- | 4.0% | --- | 18.2% | 3.6% |
| Average number of days since you inquired?..... | 9.6 | 6.5 | 6.7 | 9.0 | 7.4 |
| Is this the first time you vacationed in the Vilas County area..... | | | | | |
| Yes | 50.0% | 63.4% | 75.0% | 37.1% | 57.0% |
| No | 50.0% | 36.6% | 25.0% | 62.9% | 43.0% |
| Home area..... | | | | | |
| Wisconsin | 80.0% | 91.3% | 56.7% | 92.3% | 76.7% |
| Illinois | 5.0% | 8.7% | 26.7% | --- | 12.8% |
| Other | 15.0% | --- | 16.6% | 7.7% | 10.5% |
| Miles from home to Vilas County..... | 257 | 261 | 300 | 317 | 282 |
| Average number in party..... | | | | | |
| Adults | 3.1 | 2.9 | 3.0 | 2.4 | 2.9 |
| Children | 3.3 | 2.4 | 2.1 | 2.0 | 2.4 |
| Average age of children..... | 7.9 | 7.3 | 7.6 | 7.0 | 7.5 |
| Type of accommodations selected for a vacation..... | | | | | |
| Cottage Resort | 23.8% | 53.3% | 57.6% | 46.2% | 47.5% |
| Camping | 14.3% | 13.3% | 24.2% | --- | 15.5% |
| Motel | 23.8% | 10.0% | 9.1% | 15.4% | 13.4% |
| Resort with lodging and meals | 19.0% | 6.7% | 6.1% | --- | 8.2% |
| Friends & Relatives | 4.8% | 6.7% | 3.0% | 23.0% | 7.2% |
| Other - own place | 14.3% | 10.0% | --- | 15.4% | 8.2% |
| Why did you choose Vilas County for your vacation?..... | | | | | |
| Fishing | 22.5% | 32.4% | 32.4% | 24.0% | 29.6% |
| Scenic Beauty | 30.0% | 28.3% | 28.4% | 36.0% | 29.6% |
| Boating | 15.0% | 14.9% | 10.8% | 16.0% | 13.6% |
| Snowmobiling | --- | --- | 5.4% | --- | 1.9% |
| Skiing | 2.5% | 4.1% | 2.7% | --- | 2.8% |
| Camping | 5.0% | 6.8% | 10.8% | 4.0% | 7.5% |
| Community Activities | 5.0% | 1.4% | 5.4% | --- | 3.3% |
| Business | --- | 1.4% | --- | --- | 0.5% |
| Golf | 2.5% | 6.8% | --- | --- | 2.8% |
| Other | 17.5% | 4.1% | 2.7% | 20.0% | 8.0% |
| Hunting | --- | --- | 1.4% | --- | 0.5% |

**VILAS COUNTY VACATIONERS SURVEY RESULTS -- 1987.**

| | Wisconsin Trails Magazine | Milw. Journal | Chamber of Commerce | Milw. Journal Wisconsin Magazine | Average of all Replies |
|---|---|---|---|---|---|
| **Rating of facilities & services received in Vilas County......** | | | | | |
| FOOD SERVICE | | | | | |
| Excellent | 47.4% | 24.0% | 36.0% | 36.4% | 35.0% |
| Good | 47.4% | 72.0% | 48.0% | 54.5% | 56.3% |
| Fair | 5.2% | 4.0% | 12.0% | 9.1% | 7.5% |
| Poor | --- | --- | 4.0% | --- | 1.2% |
| LODGING FACILITIES | | | | | |
| Excellent | 33.3% | 36.0% | 11.5% | 36.4% | 27.5% |
| Good | 44.5% | 36.0% | 61.5% | 45.5% | 47.5% |
| Fair | 11.1% | 24.0% | 19.3% | 18.1% | 18.8% |
| Poor | 11.1% | 4.0% | 7.7% | --- | 6.2% |
| FISHING | | | | | |
| Excellent | 7.7% | 4.2% | 12.0% | --- | 7.1% |
| Good | 53.8% | 45.8% | 28.0% | 25.0% | 38.7% |
| Fair | 23.1% | 25.0% | 28.0% | 37.5% | 27.1% |
| Poor | 15.4% | 25.0% | 32.0% | 37.5% | 27.1% |
| BOATING FACILITIES | | | | | |
| Excellent | 9.1% | 26.1% | 12.5% | 12.5% | 16.7% |
| Good | 63.6% | 56.5% | 54.2% | 87.5% | 60.6% |
| Fair | 18.2% | 8.7% | 33.3% | 87.5% | 18.2% |
| Poor | 9.1% | 8.7% | --- | --- | 4.5% |
| PARKS & BEACHES | | | | | |
| Excellent | 38.5% | 38.1% | 23.8% | 50.0% | 34.9% |
| Good | 53.8% | 47.6% | 57.1% | 37.5% | 50.8% |
| Fair | 7.7% | 14.3% | 14.3% | 12.5% | 12.7% |
| Poor | --- | --- | 4.8% | --- | 1.6% |
| HOSPITALITY OF WAITRESSES & CLERKS | | | | | |
| Excellent | 52.6% | 31.8% | 28.6% | 58.3% | 39.5% |
| Good | 42.1% | 59.1% | 60.7% | 33.3% | 51.9% |
| Fair | 5.3% | 9.1% | 10.7% | 8.4% | 8.6% |
| Poor | --- | --- | --- | --- | --- |
| ATTITUDE OF LOCAL PEOPLE TOWARD TOURISTS | | | | | |
| Excellent | 64.7% | 16.7% | 20.0% | 36.4% | 30.5% |
| Good | 35.3% | 66.6% | 66.7% | 45.4% | 57.3% |
| Fair | --- | 16.7% | 10.0% | 18.2% | 11.0% |
| Poor | --- | --- | 3.3% | --- | 1.2% |
| Average dollars spent on vacation in Vilas County for...... | | | | | |
| Entertainment | $150.00 | $ 80.55 | $ 63.33 | $ 48.75 | $ 77.60 |
| Attractions | 45.00 | 61.67 | 50.00 | 64.00 | 54.78 |
| Lodging | 425.00 | 267.67 | 275.00 | 246.43 | 291.79 |
| Groceries | 113.89 | 107.50 | 75.29 | 81.50 | 93.61 |
| Sporting Goods | 50.00 | 52.72 | 38.08 | 72.50 | 48.94 |
| Restaurants | 160.00 | 113.61 | 91.39 | 128.50 | 117.41 |
| Transportation | 60.63 | 64.17 | 41.54 | 64.00 | 56.63 |
| Clothes | 87.00 | 82.50 | 37.50 | 50.00 | 65.25 |
| Souvenirs | 21.15 | 31.82 | 67.14 | 55.63 | 49.19 |
| Other | 56.67 | 90.00 | 75.00 | 65.00 | 66.25 |
| Total* | $846.15 | $610.75 | $627.50 | $664.58 | $670.29 |

*The total is as directly reported on the survey and thus does not necessarily agree with the figure that might be obtained by numerically adding the rest of the figures.

**VILAS COUNTY VACATIONERS SURVEY RESULTS -- 1987.**

| | Wisconsin Trails Magazine | Milw. Journal | Chamber of Commerce | Milw. Journal Wisconsin Magazine | Average of all Replies |
|---|---|---|---|---|---|
| **Average spending per party per day.....** | $ 88.14 | $ 53.57 | $ 68.96 | $ 86.31 | $ 69.10 |
| **When traveling on vacation do you use.....** | | | | | |
| Cash | 39.1% | 53.2% | 42.7% | 46.1% | 44.9% |
| Credit Cards | 23.9% | 34.0% | 25.0% | 23.1% | 26.8% |
| Personal Checks | 17.4% | 6.4% | 17.6% | 15.4% | 14.4% |
| Travelers Checks | 19.6% | 6.4% | 14.7% | 15.4% | 13.9% |
| **Which of the following was most important in your decision to vacation in Vilas County.....** | | | | | |
| Vilas Co. Packet of Materials | 19.2% | 17.6% | 18.2% | 27.8% | 19.7% |
| Recommendation from relative or friend | 11.5% | 23.5% | 20.5% | 27.8% | 20.5% |
| Brochure from resort,etc. | 15.4% | 17.6% | 15.9% | 11.1% | 15.6% |
| Local C/C literature | 11.5% | 14.7% | 9.1% | --- | 9.8% |
| Magazine advertisement | 3.8% | --- | 2.3% | 5.6% | 2.5% |
| Newspaper ad | --- | 5.9% | 6.8% | --- | 4.1% |
| Sport Shows | --- | 2.9% | 4.5% | --- | 2.5% |
| Newspaper article | 3.8% | --- | 2.3% | 5.6% | 2.5% |
| Radio announcement | --- | --- | --- | --- | --- |
| TV show announcement | --- | --- | 2.3% | --- | 0.8% |
| Other | 34.6% | 17.6% | 18.2% | 22.2% | 22.1% |
| **Who in your family is most responsible for selecting the vacation spot.....** | | | | | |
| Husband | 38.5% | 33.3% | 47.1% | 41.7% | 39.8% |
| Wife | 38.5% | 41.7% | 35.3% | 41.7% | 38.9% |
| Children | --- | --- | --- | --- | --- |
| All | 23.0% | 25.0% | 17.6% | 16.6% | 21.3% |
| **Do you plan to spend vacation time in Vilas County again?.....** | | | | | |
| Yes | 82.4% | 100.0% | 95.8% | 90.9% | 93.3% |
| No | 17.6% | --- | 4.2% | 9.1% | 6.7% |
| **If yes, what month and year......** | | | | | |
| January | 10.0% | 4.3% | --- | --- | 3.8% |
| February | --- | 4.3% | --- | --- | 1.3% |
| March | --- | --- | 4.0% | 20.0% | 3.8% |
| April | 5.0% | --- | --- | --- | 1.3% |
| May | 10.0% | --- | 12.0% | 10.0% | 7.7% |
| June | 10.0% | 17.4% | 24.0% | 10.0% | 16.7% |
| July | 25.0% | 30.4% | 20.0% | 30.0% | 25.6% |
| August | 15.0% | 26.2% | 16.0% | 30.0% | 20.5% |
| September | 15.0% | 13.1% | 12.0% | --- | 11.5% |
| October | --- | 4.3% | --- | --- | 1.3% |
| November | --- | --- | --- | --- | --- |
| December | 10.0% | --- | 12.0% | --- | 6.4% |
| 1988 | 100.0% | 93.3% | 92.9% | 100.0% | 95.6% |
| 1989 | --- | 6.7% | 7.1% | --- | 4.4% |

**VILAS COUNTY VACATIONERS SURVEY RESULTS -- 1987.**

| | Wisconsin Trails Magazine | Milw. Journal | Chamber of Commerce | Milw. Journal Wisconsin Magazine | Average of all Replies |
|---|---|---|---|---|---|
| What is the occupation of the head of household..... | | | | | |
| White Collar & Professional | 63.2% | 70.8% | 76.7% | 63.6% | 70.2% |
| Blue Collar | 15.7% | 20.8% | 16.6% | 9.1% | 16.7% |
| Retired | 21.1% | 8.4% | 6.7% | 27.3% | 13.1% |
| Range of total family income..... | | | | | |
| $15,000-$25,000 | 6.3% | 9.1% | 10.0% | 16.7% | 10.0% |
| $25,000-$35,000 | 18.8% | 13.6% | 26.7% | 8.3% | 18.8% |
| $35,000-$45,000 | 31.3% | 27.3% | 23.3% | 25.0% | 26.3% |
| $45,000-$55,000 | 6.3% | 22.7% | 16.7% | 16.7% | 16.3% |
| $55,000+ | 37.5% | 27.3% | 23.3% | 33.3% | 28.8% |

## SUMMARY

## VILAS COUNTY VACATIONERS SURVEY -- 1987

In analyzing the survey it must be realized that the sampling was relatively small and the number of returns even smaller. Four hundred surveys were sent out and 158 of these were returned.

About 42% of those responding to the Wisconsin Trails Ad returned their survey, and 41% of the Milwaukee Journal Ad inquirers responded, while 40% of the Vilas County Chamber of Commerce inquirers returned the survey. Thirty five percent of those responding to the Wisconsin Magazine Section (of the Milwaukee Journal) returned surveys.

The average respondent spent between 7.7 and 11.4 days on vacation last year in Vilas County, with the overall average being 9.7 days, up about 2.7 days from the previous year but similar to two years ago.

They indicated that July and August were the most popular months with about 33% vacationing in July followed with August at 20%. September was next in popularity with about 14% choosing it followed by June at 11%.

Of those responding to the survey, 57% indicated they vacationed in Vilas County, while 43% did not.

The vast majority indicated they felt that the information they received was adequate for their needs, was relatively accurate, and that they received it promptly.

About 43% of the respondents indicated that they had vacationed in the Vilas County area before, and thus 57% were first time visitors indicating the area was introduced to a lot of new people.

Those responding stayed in all parts of the county and were quite uniformly distributed around the entire county.

Since most of the inquirers surveyed were as a result of ads in Wisconsin publications, most respondents were from Wisconsin. Overall this amounted to about 78% being from Wisconsin, with about 13% from Illinois.

The average number of adults per party was about 2.9, while the number of children was about 2.4 for those parties reporting children, with the average age around 7.5 years.

Most vacationers stayed at cottage resorts, followed by camping, motels and American plan resorts, as well as at their own place.

The majority choose Vilas County as their vacation spot for one of three reasons, either fishing, scenic beauty (tied) or boating in that order. all of these are largely based around our water resources.

From the rating of facilities and services received in Vilas County, it appears as though there is still room for much improvement. The majority ranked food service, lodging facilities, boating facilities, parks and beaches, hospitality and attitude toward tourists as good to excellent. About 9% to 25% ranked the area fair to poor in these categories. However, when it came to fishing, 27% ranked it as poor, while 27% indicated fishing as fair and 39% said fishing was good. Even so 7% ranked fishing as excellent which helps to prove the axiom that 90% of the fish are caught by 10% of the fisherman.

The average party spent about $670 while on vacation for an average spending per party per day of about $69.

The total spending per party was down about $60 this year compared to last year, while spending per party per day was down about $35. This spending pattern is similar to two years ago.

Cash is still the most popular way of paying the bill with a rating of 45%. This is followed by credit cards with a usage rate of about 27%, and personal checks at 15%. Travelers checks rank last as about 14%.

A good recommendation from a friend or relative was the most important factor in a vacationers decision to spend time in the county. This was followed by the Vilas County packet of materials and a brochure from the resort or other accommodation. It should be pointed out however, in order to get the accomodation, county or local chambers of commerce literature, they probably responded to an ad or publicity article of some sort.

The husband and wife were nearly equal in being most responsible for selecting the vacation spot. However, in many cases it was a joint family decision.

The most popular months for another vacation are July, August and June in that order.

About 17% of vacationers to this area are blue collar workers, 70% are either professional people or white collar workers, while 13% are retired.

The majority (over 71%) had sizable family incomes averaging over $35,000 with over 45% reporting family incomes in excess of $45,000.

In answer to the question on how this areacan be improved to make vacations more pleasurable, there were many answers. Some of those most indicated include improving fishing (stock more fish), don't over commercialize, improve accommodations and beach and boating landings, and have more good restaurants.

The least enjoyable items reported while on vacation included bad weather, poor fishing, poor accommodations, crowds and going home.

Among the most enjoyable things on vacation were the scenic beauty of the area, fishing, relaxing, peace and quiet, boating and good restaurants.

The vast majority (93%) indicated they would vacation in Vilas County again, and of these 96% indicated they would return in 1988 so evidentally they were quite satisfied with their vacation here.

Table 1

## FRY AND FINGERLING STOCKINGS IN LAC DU FLAMBEAU LAKES
## JANUARY-NOVEMBER, 1987

| LAKE | SPECIES | NO. FRY STOCKED | NO. FGLG. STOCKED | SIZE (INCHES) | COST |
|---|---|---|---|---|---|
| Big Crawling Stone | WAE | 300,000 | | | $ 6,000.00 |
| | WAE | | 6,708 | 3.0-3.5 | 4,360.20 |
| | MUE | | 40 | 5.0 | 32.00 |
| Big Crooked | WAE | 350,000 | | | 7,000.00 |
| Bolton | WAE | 500,000 | | | 10,000.00 |
| | WAE | | 2,000 | 6.0 | 2,800.00 |
| Broken Bow | WAE | 400,000 | | | 8,000.00 |
| Fat | WAE | 500,000 | | | 10,000.00 |
| Fence | WAE | 300,000 | | | 6,000.00 |
| | WAE | | 15,093 | 3.0-3.5 | 9,810.45 |
| | MUE | | 40 | 5.0 | 32.00 |
| | BRT | | 5,523 | 5.0-7.0 | 2,595.81 |
| Flambeau | WAE | 750,000 | | | 15,000.00 |
| | WAE | | 7,000 | 3.0-3.5 | 4,550.00 |
| | MUE | | 190 | 5.0 | 152.00 |
| | MUE | | 16 | 9.0 | 16.00 |
| Grey | WAE | 300,000 | | | 6,000.00 |
| Gunlock | WAE | 750,000 | | | 15,000.00 |
| Ike Walton | WAE | 500,000 | | | 10,000.00 |
| Little Crawling Stone | WAE | 400,000 | | | 8,000.00 |
| Little Pine | WAE | 400,000 | | | 8,000.00 |
| Little Trout | WAE | 350,000 | | | 7,000.00 |
| Long Interlaken | WAE | 750,000 | | | 15,000.00 |
| | WAE | | 4,800 | 3.0-3.5 | 3,120.00 |
| Lower Sugarbush | WAE | 750,000 | | | 15,000.00 |
| | WAE | | 3,200 | 3.0-3.5 | 2,080.00 |
| | MUE | | 26 | 5.0 | 20.80 |
| Middle Sugarbush | WAE | 750,000 | | | 15,000.00 |
| | WAE | | 4,000 | 3.0-3.5 | 2,600.00 |
| | MUE | | 18 | 5.0 | 14.00 |
| | MUE | | 25 | 11.0 | 35.00 |
| Minette | WAE | 300,000 | | | 6,000.00 |
| Mitten | WAE | 300,000 | | | 6,000.00 |
| Plummer | WAE | 500,000 | | | 10,000.00 |
| Pokegama | WAE | 2,200,000 | | | 44,000.00 |
| | WAE | | 4,000 | 4.0 | 3,600.00 |
| | MUE | | 36 | 5.0 | 28.80 |
| | MUE | | 15 | 9.0 | 15.00 |
| | MUE | | 35 | 11.0 | 35.00 |
| | MUE | | 20 | 12.0 | 20.00 |
| Ross Allen | WAE | 300,000 | | | 6,000.00 |
| Shisebogama | WAE | 775,000 | | | 15,500.00 |
| | WAE | | 4,000 | 3.0-3.5 | 2,600.00 |
| Signal | WAE | 300,000 | | | 6,000.00 |
| Statenaker | WAE | 500,000 | | | 10,000.00 |
| | WAE | | 4,000 | 3.0-3.5 | 2,600.00 |
| Stearns | WAE | 300,000 | | | 6,000.00 |
| Tippecanoe | WAE | 300,000 | | | 6,000.00 |
| Upper Sugarbush | WAE | 750,000 | | | 15,000.00 |
| | WAE | | 4,000 | 3.0-3.5 | 2,600.00 |
| | MUE | | 16 | 5.0 | 12.80 |
| White Sand | WAE | 1,200,000 | | | 24,000.00 |
| | WAE | | 6,000 | 3.0-3.5 | 3,900.00 |
| | MUE | | 35 | 11.0 | 35.00 |
| | | | 20 | 12.0 | 20.00 |
| Whitefish | WAE | 750,000 | | | 15,000.00 |
| Wild Rice | WAE | 400,000 | | | 8,000.00 |
| **TOTALS** | | **16,925,000** | **70,856** | | **$383,584.86** |

**LEGEND:**

| | |
|---|---|
| **WAE - Walleye** | **BRT - Brown Trout** |
| **MUE - Muskellunge** | **FGLG - Fingerling** |

Table 2

## AREA BUSINESSES PATRONIZED BY

## LAC DU FLAMBEAU FISH AND GAME DEPARTMENT

## APRIL 1, 1987 - February 16, 1988

### LAC DU FLAMBEAU BUSINESSES

Village Hardware
Grizzly Bill's
Corner Garage
T & L Mini Mart
D & J Auto
Flambeau Mobil
Yukon Tom's
Carl Ashe
Val's Auto
Jim Williams
Tribal Roads
Was-Wa-Gon Campground
Save More Foods
Tekawitha Club
Fireside
Trading Post
Norm Warner
Schmitz Wrecking Service

AMOUNT REMUNERATED TO LAC DU FLAMBEAU BUSINESSES $16,155.00

### OTHER AREA BUSINESSES

Rhinlander Paper Company
Northwoods Travel
Trig's Food and Drug
J.J. Acres
Marie Faulkner
Woodruff Hardware
Pamida
NAPA
Minocqua Glass
Howard Brothers
Northern Auto
Hanson's Hardware
Quality Small Engines
Pukall Lumber
Lakeland Rental
Wicke's Lumber
Frazier's Plumbing

Lakeland Electric Motors
Charles Schneider Construction
Vic's Photo
Winger Concrete
Harry's Sport Shop
AVFCO Wholesale Supply
Northern Lights Generator
MAP Office Supply
Emmons-Napp Office Supply
Trapp Brothers
Nimsgren Welding
Silent Knight
Ritchie Lakeland Oil
Sully, Inc.
Marston Motors
Dave & Dean's Tire
T.J. Tool
Dans, Inc.
Holiday Station
C.W. Business Systems
Wisconsin Public Service
Lakes Propane
General Telephone
Cox Motors
John's Homemade Sausage
Karl's Electric
Rhinelander Daily News
Lakeland Times
Northwoods Personally Yours
Lakeland Printing

| | |
|---|---|
| AMOUNT REMUNERATED TO OTHER AREA BUSINESSES | $76,454.18 |
| TOTAL AMOUNT REMUNERATED TO LAKELAND AREA BUSINESSES | $92,609.18 |

## CHIPPEWA HEALTH CENTER

The Lac du Flambeau Tribal Council realizes that over the past twenty to thirty years there has been much progress in the delivery of Health Care services to the Reservations. For example, at Lac du Flambeau, it used to be necessary for families to travel to the old Hayward Indian Hospital rather than having closer referral sources or their own Clinic to provide necessary services. Today, Flambeau has its own Clinic, and Contract Health Services funds can be used for hospitalizations at the Howard Young Medical Center and other more accessible facilities. Furthermore, the Council realizes that there are substantial reasons for continued support of this improvement.

## HEALTH PROBLEMS AND DEMAND FOR SERVICES

Various factors have had the effect of limiting health care options and exacerbating numerous health problems:

1. Adverse climate and lack of private transportation and telephone.
2. Comparison of average annual family income levels for Reservation households and for the State of Wisconsin as a whole has consistently indicated a two-to-one ratio in favor of Statewide incomes. Furthermore, the Lac du Flambeau BIA Labor Force Report of February, 1984, showed a typical unemployment rate of 63%.
3. A birth rate in 1982 and recent years of approximately 33.3 per 1,000 has tended to place additional strain on services due to the intensity of obstetric and pre and post-natal medical service needs.
4. Post-neo-natal mortality rates persist at higher levels in Flambeau and on other Reservations than for all Wisconsin races. For example, post-neo-natal mortality rates per 1,000 live births in 1974 were 13.3 for all Wisconsin Service Unit Indians and only 3.7 for all Wisconsin races. Similar figures for 1977 were 11.8 versus 3.8 , and for 1981 - 15.6 versus 2.9.
5. Problems related to alcohol and drug use are substantial, with records of the Tribal alcohol program showing an average of seventy-two (72) individuals per year referred into inpatient treatment during the period of 1980-1982. This figure does not reflect the large number of people receiving outpatient counseling for alcohol problems or those refusing treatment. The Lac du Flambeau Chippewa Helath Center Nutritionist maintained records which showed that 10% of all pregnant women in 1983 used more than one ounce of absolute alcohol or 24 ounces of beer a day during their pregnancies.
6. The high incidence of diabetes has made necessary establishment of a diabetic clinic, diabetic clinical control sheet and procedures, and special outreach and eductional approaches.

Such factors have led to constantly and rapidly expanding demand for services. In FY 1980, for example, the Tribe's Health Center had approximately 10,900 Ambulatory patient Care (APC) visits, while in FY 85 this number was approximately 16,285, with similar rates persisting in recent years. This increase of nearly 50% has, furthermore placed added strain on auxiliary services such as laboratory, x-ray, pharmacy, and administration. If all services areas are included, the Tribe's Health Services provide more than 40,000 encounters per year to the Public.

## HEALTH CARE RESOURCE TRENDS

Indian Health Services have always been inadequately funded and Indian people still rank far above the national average in terms of most negative indicators of health. Starting from an inadequate funding base which has never kept up with inflation in a high inflation industry over the year, even stable funding results in a significant cut due to rising costs. There is no slush in the Tribe's Indian health care funding; static funding has already cut into the bone.

At the beginning of Lac du Flambeau's FY 86 contract, for example, it was necessary to eliminate the following positions:

| POSITION | FTE'S ELIMINATED |
|---|---|
| Part-Time Exercise Coordinator | .35 |
| CHR | 1.0 |
| Sanitarian | 0.5 |
| Housekeeping | 1.5 |
| Administrative Clerk-Typist | 1.0 |
| Nii-Jii Coordinator (alcoholism prevention) | 1.0 |
| Elders & Youth Coord (alcoholism prevention) | 1.0 |
| TOTAL Fte'S ELIMINATED | 6.35 |

Before these positions were cut, other operating expenses were pared to the bone, leaving little lee-way there for furture decreases.

Subsequently, in FY 87, two more positions were eliminated from the IHS contract and transfered to third party funding, and funding cuts in such areas as Materials and Supplies, Continuing Education, Insurance, Telephone, Community and Field Health Education and Professional Staff Recruitment, have made the overal budget much tighter. Essentially all CHS's funding, for example, has been obligated as of the end of February, 1988, while two months remain yet on the FY 87 contract.

As the Tribe approaches planning for its new contract there are no good alternatives. Staffing cuts will probably again be necessary unless relief can be provided quickly. An excellent and dedicated staff who have had a 2% Cost-of-living increase only during FY 86 and FY87, face little or no increase again during FY 88. With increased workloads due to staffing decreases, retention of qualified staff has become a severe problem.

SURRM STAFFING NEEDS ASSESSMENT

The attached SURRM Needs Assessment Sheet dated January 14, 1987, performed by Indian Health Services staff, illustrates just how truly unacceptable this funding situation has become. Page 12, Section XI, for instance, indicates a total resource need of $2,193,322 for Lac du Flambeau. Even allowing for the inclusion of third party in this figure and for the fact that Alcoholism/Mental Health needs are not included, it is clear that there are very substantial unmet service needs which remain.

These unmet needs can perhaps more clearly illustrated by the following table which compares existing with staffing needs projected by the printout on the basis of such imput variables as population and encounter rates.

| POSITION | CURRENT STAFFING (FTE'S) | SURRM PROJECTED (FTE'S) |
|---|---|---|
| Clinical Nurses | 2.0 | 3.1 |
| Dental Services | 3.6 | 4.9 |
| Public Health Nursing | 1.0 | 1.4 |
| CHR's | 3.0 | 4.7 |
| Sanitarian | 0.6 | 1.5 |
| Management | 2.0 | 3.0 |
| Medical Records | 1.0 | 2.4 |
| Health Workers | 0 | 2.0 |

## TRIBAL MANAGEMENT GRANT PROGRAM AND 10/75 INITIATIVES

There has been much discussion of the "10/75 Initiative", under which 75% of IHS funded programs would be 638ed within ten years. Reflecting this orientation is the recently announced Tribal Management Grant Program, the number one priority of which is to encourage Tribes to assume the operation of IHS run programs.

While we are in agreement with the initiative and Grant Program, we note with irony that 638 clinical programs in Wisconsin, which have in many respects led the nation in the 638 approach to service provision, are having to substantially curtail services. At the same time that these programs have come under increasing budget pressure, staffing in the Bemidji and Rhinelander IHS Offices has steadily increased in recent years.

## COMMENTS OF WISCONSIN TRIBAL HEALTH DIRECTORS' ASSOCIATION (WTHDA)

It is noted that the WTHDA predicted these trends in its analysis of the February, 1983, Director's Task Force Report on Contract Health Services. It seems clear that, despite discussion about Tribally contracted services, a trend toward greater centralization and "slimming down" of 638 clinical sites, is the reality.

## RECOMMENDATIONS

1. The problem of overall IHS funding must be addressed.
2. Tribal input/contracting should be a real priority, with more funding preference going to the service sites. The trend toward centralization should be reviewed as to its desirability.
3. A provision for pay increases for 638 staff should also be a top priority. Mandatory pay increases for Federal employees do not substantially help 638 sites which have few such employees, when pay increases must be taken from the contract base and when long-term 638 employees remain ineligible for special continuation pay.

Attachments: January 14, 1987 SURRM Printout
WTHDA Comments

```
Lac du Flambeau Chippewa Tribe          14-Jan-87                       PAGE
--------------------------------------------------------------------------------
IV.  AMBULATORY CLINIC
--------------------------------------------------------------------------------
     WORKLOAD               ACTUAL         ADJUSTED
  DRIVING VARIABLES         VALUES          VALUES
--------------------------------------------------------------------------------
SU INDIAN USERS         [   1,571 ]          1,571

PCPVs TO OTHER SU      . [     18 ]            18
PCPVs TO PRIV. SECTOR  [     829 ]            812
% IN PRIVATE SECTOR          8.5%            8.5%
% IN OTHER SUs               0.2%            0.2%

PCPVs TO HOSPITAL OPD  [       0 ]              0
PCPVs TO HLTH CENTERS  [   9,027 ]          8,842
PCPVs TO STATIONS      [       0 ]              0
ALASKA CHP VISITS      [       0 ]              0

SU PCPVs BY NON-IND.   [      85 ]             85
SU PCPVs BY NON-SU IND[        4 ]              4

TOTAL SU PCPV EQUIV.        9,785           9,583
UTILIZATION RATE              6.2             6.1
-----------------------------------    -----------------------------------------
    OTHER DRIVING   .      INPUT      .    OUTPUT     SALRY  FTE     SALARY
      VARIABLES            VALUES          CATEGORY     LVL  NEEDS   & FRINGE
-----------------------------------    -----------------------------------------
HLTH CENTR THRESHOLD        4,400
ACTUAL CHS UNIT COST   [    $178 ]     AMBULATORY CHS                $130,9
ALASKA CHP'S FTE       [       0 ]
ALS. CHPS SUPPORT FTE  [       0 ]     ALASKA CHP's  0.8    0.0           $
ISOLATION RATING               0       CHP SUPPORT   0.8    0.0           $
# OPD/HC'S OPEN 24 HRS[        0 ]
ER/AFTER HRS PCPV's    [       0 ]     HLTH STATIONS 1.4    0.0           $
# ON STAFF SPECIALISTS[        1 ]
COST/SPECIALTY CLINIC [     $200 ]   -PCP'S          2.0    1.8      $105,
RND TRIP HRS HLTH STS [        0 ]   -NURSING        1.2    3.1      $112,
% TRIBALLY OPERATED    [  100.0%]      ER/AFTER HRS  1.4    0.0           $
CLINIC SQ FOOTAGE      [       0 ]
INDIAN % (AMB WL)           99.0%      # SPEC CLINICS      = 35.6      $7,

        ***  OTHER SPECIAL NON-RRM AMBULATORY PROGRAMS  ***
  ... PGM NAME, FTE -> [       0 ]     ACTUAL FTE    1.0    0.0           $
  ... PGM NAME, FTE -> [       0 ]     ACTUAL FTE    1.0    0.0           $
  ... PGM NAME, $   -> [      $0 ]     NON-FTE $ PROGRAMS                 $
********************************************************************************
IV.  SUMMARY                                 CATEGORY                 REQUIRE
*****************************************----------------------------------------
                                       DIRECT FTE                         
                                       CHS                           $138,11
             :                         SALARIES/FRINGE               $217,99
      AMBULATORY                       STEPDOWN SUPPORT                   $
        CLINIC                                                    ---------
         CARE                          GRAND TOTAL $                 $356,1
                                       DIRECT COST/PCPV                   $
                                       $ PER CAPITA                       $
********************************************************************************
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Lac du Flambeau Chippewa Tribe          14-Jan-87                     PAGE
------------------------------------------------------------------------------
V.  ANCILLARY CLINICAL CARE
------------------------------------      ------------------------------------
   OTHER DRIVING            INPUT           OUTPUT     SALRY  FTE     SALARY
     VARIABLES             VALUES          CATEGORY     LVL  NEEDS  & FRINGE
------------------------------------      ------------------------------------
CLINIC POPULATION            1,571
ADJ. TOTAL PCPV's            8,942      -HLTH RECORDS  0.8     2.4     $58,25
ADJ. HOSPITAL CENSUS            .0      -PHARMACY      1.1     1.8     $57,9
MEDICAL CENTER Y=1               0      -X-RAY         1.0     0.8     $24,6
# ICU BEDS                       0      -LAB           1.0     1.1     $33,44
# OR ADMISSIONS                  0       RESP. THERAPY 1.0     0.0          $
COMPOSITE WORKUNITS          8,642       OCCUP. THERY  0.9     0.0          $
LAB AUTO. HI=1 LO=2   [          2 ]    -QUALITY ASSUR 1.2     1.0     $35,7
DRUGS/SUPPLIES $      [ $43,000 ]
DRUGS/SUPPLY BUFFER %       100.0%       DRUGS/MED. SUPPLIES           $62,96
ACTUAL PATIENT TRAV. $[  $2,189 ]
PAT. TRAV. BUFFER %         100.0%       PATIENT TRAVEL                $10,3
MEDICAL STAFF TRAVEL $[      $0 ]
STAFF TRAVEL BUFFER %       100.0%       CLINICAL RELATED TRAVEL           $
ISOLATION RATING                 0
MALPRACTIVE INSURANCE [ $26,342 ]        MALPRACTIVE INSURANCE         $26,08
ANCILLARY SQ FOOTAGE  [          0 ]
% TRIBALLY OPERATED   [     100.0%]
INDIAN % (CLIN COMPOS)       99.0%

      ***  OTHER SPECIAL NON-RRM ANCILLARY FUNCTIONS  ***
 ... PGM NAME, FTE -> [          0 ]    ACTUAL FTE     1.0     0.0          $
 ... PGM NAME, FTE -> [          0 ]    ACTUAL FTE     1.0     0.0          $
 ... PGM NAME, $   -> [         $0 ]    NON-FTE $ PROGRAMS                  $

******************************************************************************
V.  SUMMARY                                    CATEGORY                REQUIRE
***************************************-------------------------------------
                                        DIRECT FTE                          7.
                                        SALARIES/FRINGE              $209,99
      ANCILLARY                         OTHER CHARGES                 $99,38
       CLINICAL                         STEPDOWN SUPPORT                   $
         CARE                                                      ----------
                                        GRAND TOTAL $                $309,3
                                        COST PER CWU                      $3
                                        $ PER CAPITA                     $19
******************************************************************************
```

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Lac du Flambeau Chippewa Tribe              14-Jan-87                     PAGE
---------------------------------       ----------------------------------------
VI. OTHER AMBULATORY CARE                         RRM REQUIREMENTS
---------------------------------       ----------------------------------------
      DRIVING               INPUT         OUTPUT      SALRY  FTE       DOLLA
     VARIABLES              VALUES       CATEGORY      LVL  NEEDS      NEEDS
---------------------------------       ----------------------------------------
       [ DENTAL ]
POPULATION THRESHOLD          800
CLINICAL USERS          [   1,571 ]  —DENTAL FTE      1.3    4.9     $193,1
DENTAL USERS            [     880 ]   DENTAL CHS                      $11,8
TARGET UTILIZ. RATE         60.0%     STEPDOWN SUPPORT
% UTIL. GROWTH IN YEAR     100.0%
ACTUAL MIN. PER USER    [   117.0 ]      TOTAL                4.9    $205,0
TARGET MIN. PER USER    [   156.0 ]      FTE/000,$/CAPITA     3.1        $1
% MIN. GROWTH IN YEAR      100.0%
% PRIVATE PURCHASE      [     0.0%]      SUBTOTAL - CURRENT SVS      $143,5
CONTRCT COST/DEN. MIN.[     $2.02 ]      SUBTOTAL - UTIL. INCRS.      $10,2
DENTAL SQ FOOTAGE       [       0 ]      SUBTOTAL - CARE INCRS.       $51,2
INDIAN %                   100.0%
% TRIBALLY OPERATED     [  100.0%]
     [ OPTOMETRY ]                     ----------------------------------------
POPULATION THRESHOLD        2,128
POPULATION              [   1,571 ]   DIRECT OPT      1.2    0.0          $
REQ MIN PER CAPITA           12.0     CHS OPT                         $31,1
CNTRC COST/MIN CARE         $1.63     GLASSES                         $21,6
COST/GLASSES               $33.00     STEPDOWN SUPPORT                    $
% POP REQ GLASSES           25.0%
% PRIVATE PURCHASE      [  100.0%]       TOTAL                0.0     $52,7
OPTOMETRY SQ FOOTAGE    [       0 ]      FTE/000,$/CAPITA     0.0        $
INDIAN %                   100.0%
% TRIBALLY OPERATED     [  100.0%]

     [ AUDIOLOGY ]                     ----------------------------------------
POPULATION THRESHOLD        6,803
POPULATION              [   1,571 ]   DIRECT AUD      1.2    0.0          $
% POP REQ HRNG AIDS         0.50%     CHS AUD                         $16,9
REQD AUD MIN/CAPITA         11.00     HEARING AIDS                     $2,1
CNTRC COST/AUD MIN          $0.98     STEPDOWN SUPPORT                    $
COST/HEARING AID          $275.00
% PRIVATE PURCHASE      [  100.0%]       TOTAL                0.0     $19,0
AUDIOLOGY SQ FOOTAGE    [       0 ]      FTE/000,$/CAPITA     0.0        $1
INDIAN %                   100.0%
% TRIBALLY OPERATED     [  100.0%]

 [ PHYSICAL THERAPY ]                  ----------------------------------------
POPULATION THRESHOLD        3,782
POPULATION              [   1,571 ]   DIRECT PT       1.0    0.0          $
CLINICAL WORKUNITS          8,842     CHS PT                          $30,1
PT MIN/CLINICAL UNIT            2     STEPDOWN SUPPORT                    $
% PRIVATE PURCHASE      [  100.0%]
COST/PT MIN                 $1.72        TOTAL                0.0     $30,1
PT SQ FOOTAGE           [       0 ]      FTE/000,$/CAPITA     0.0        $1
INDIAN % (CLIN COMPOS)      99.0%
% TRIBALLY OPERATED     [  100.0%]
```

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Lac du Flambeau Chippewa Tribe              14-Jan-87                      PAGE
[ EMERGENCY MEDICAL SERVICES ]             ---------------------------------------
POPULATION THRESHOLD          1,500
POPULATION               [    1,571 ]   RESPONDERS      0.8      0.0              $
% PRIVATE PURCHASE       [   100.0%]    EMS CHS                               $4,24
CHS RATE/1000                    60     STEPDOWN SUPPORT                          $
CHS COST PER SERVICE     [   $45.00 ]
SQUARE MILES             [      127 ]   AMBULANCES                 0
EMS ADMISSIONS           [       47 ]
EMS SQ FOOTAGE           [        0 ]
INDIAN %                      100.0%       TOTAL                   0.0        $4,24
% TRIBALLY OPERATED      [    100.0%]      FTE/000,$/CAPITA        0.0            $

**************************************************************************************
VI.  SUMMARY                                   CATEGORY                      REQUIRE
*************************************-------------------------------------------------
                                        DIRECT FTE                               4.
                                        CHS & OTHER                        $118,05
          OTHER                         SALARIES/FRINGE                    $193,13
        AMBULATORY                      STEPDOWN SUPPORT                          $
           CARE                                                           ---------
                                        GRAND TOTAL $                      $311,18
                                        TOTAL $ PER CAPITA                     $19
**************************************************************************************


------------------------------           ---------------------------------------------
VII.  COMMUNITY HEALTH SERVICES                        RRM REQUIREMENTS
------------------------------           ---------------------------------------------
       DRIVING                  INPUT        OUTPUT       SALRY   FTE      DOLLAR
      VARIABLES                 VALUES       CATEGORY      LVL   NEEDS     NEEDS
------------------------------          ---------------------------------------------
   [ COMMUNITY HEALTH NURSING ]
POPULATION THRESHOLD          1,400
POPULATION               [    1,571 ]  —COMMUN. SVS     1.0     1.1       $33,25
HOME HLTH CARE    Y=1    [        0 ]   INTERPR. SVS    0.6     0.0            $
% INTERPRETER SERVICES[        0.0%]   —SCHOOL SVS      1.0     0.3        $8,35
SCHOOL SVS    Y=1        [        1 ]   STEPDOWN SUPPORT                        $
ITINRNT=1  SCH BASED=2[           1 ]
CHN SQ FOOTAGE           [        0 ]
INDIAN %                      100.0%       TOTAL                (1.4)      $41,64
% TRIBALLY OPERATED      [    100.0%]      FTE/000,$/CAPITA      0.9           $2

   [ PUBLIC HEALTH NUTRITION ]          ---------------------------------------------
POPULATION THRESHOLD          1,200
POPULATION               [    1,571 ]  —NUTR SVS         1.0     0.8       $23,15
NUTRITION SQ FOOTAGE     [        0 ]   STEPDOWN SUPPORT                        $
INDIAN %                      100.0%       TOTAL                (0.8)      $23,15
% TRIBALLY OPERATED      [    100.0%]      FTE/000,$/CAPITA      0.5           $1

   [ ENVIRONMENTAL HEALTH SERVICES ]----------------------------------------------
.POPULATION THRESHOLD         1,000
POPULATION          :    [    1,571 ]  —DIRECT ENVRN    1.2     1.5       $54,12
ENVRN HLTH FTE           [      1.5 ]   STEPDOWN SUPPORT                        $
ENVIRN HLTH SQ FOOTAGE[           0 ]
INDIAN %                      100.0%       TOTAL                (1.5)      $54,12
% TRIBALLY OPERATED      [    100.0%]      FTE/000,$/CAPITA      1.0           $3
```

```
Lac du Flambeau Chippewa Tribe            14-Jun-87                              PAG
   [ MENTAL HEALTH SERVICES ]              ------------------------------------
POPULATION THRESHOLD          2,000
POPULATION               [    1,571 ]  —MENTAL HLTH    1.1      0.0
MEN HLTH SQ FOOTAGE      [        0 ]   STEPDOWN SUPPORT
INDIAN %                     100.0%       TOTAL                 0.0
% TRIBALLY OPERATED      [   100.0%]      FTE/000,$/CAPITA      0.0

   [ SOCIAL SERVICES ]                  ------------------------------------
POPULATION THRESHOLD          2,788
POPULATION               [    1,571 ]  —SOCIAL SVS     1.0      0.0
SOC SVS SQ FOOTAGE       [        0 ]   STEPDOWN SUPPORT
INDIAN %                     100.0%       TOTAL                 0.0
% TRIBALLY OPERATED      [   100.0%]      FTE/000,$/CAPITA      0.0

   [ HEALTH EDUCATION ]                 ------------------------------------
POPULATION THRESHOLD          4,200
POPULATION               [    1,571 ]   HLTH EDUC      1.0      0.0
# TRIBAL CONSORTIUMS     [        1 ]   STEPDOWN SUPPORT
# SCHOOLS @200 PUPILS    [        0 ]
HLTH ED SQ FOOTAGE       [        0 ]
INDIAN %                     100.0%       TOTAL                 0.0
% TRIBALLY OPERATED      [   100.0%]      FTE/000,$/CAPITA      0.0

   [ ALCOHOLISM SERVICES ]              ------------------------------------
POPULATION THRESHOLD          1,000
AMBULATORY POPULATION    [        0 ]  —AMB ALC SVS    1.0      0.0
ALCOH SQ FOOTAGE         [        0 ]   STEPDOWN SUPPORT
INDIAN %                     100.0%
MODULE %                     100.0%       TOTAL                 0.0
% TRIBALLY OPERATED      [   100.0%]      FTE/000,$/CAPITA      0.0

   [ CHR ]                              ------------------------------------
POPULATION THRESHOLD            200
POPULATION               [    1,571 ]  —CHR                 0.6      4.7      $85,
PROVIDE TRANS.?  Y=1     [        1 ]   OFFICE STAFF        0.7      0.0
CHR SQ FOOTAGE           [        0 ]   STEPDOWN SUPPORT
INDIAN %                     100.0%
% TRIBALLY OPERATED      [   100.0%]      TOTAL                 4.7      $55,
                                          FTE/000,$/CAPITA      3.0         $
   [ COMMUNITY HEALTH WORKER ]          ------------------------------------

POPULATION               [    1,571 ]  ?HLTH WORKER    1.0      2.0      $57,
% OF COMMUNITY SVS            50.0%     STEPDOWN SUPPORT
STAFF RATIO (FTE/1000)          2.5
SQ FOOTAGE               [        0 ]     TOTAL                 2.0      $59,
INDIAN %                     100.0%       FTE/000,$/CAPITA      2.5         $
% TRIBALLY OPERATED      [   100.0%]

      ***  OTHER SPECIAL NON-RRM COMMUNITY HEALTH PROGRAMS  ***

POPULATION               [    1,571 ]
 ... PGM NAME, FTE ->    [        0 ]   ACTUAL FTE     1.0      0.0
 ... PGM NAME, FTE ->    [        0 ]   ACTUAL FTE     1.0      0.0
 ... PGM NAME, $   ->    [       $0 ]   NON-FTE $ PROGRAMS
SQ FOOTAGE               [        0 ]
INDIAN %                     100.0%       TOTAL                 0.0
% TRIBALLY OPERATED      [   100.0%]      FTE/000,$/CAPITA      0.0
```

```
Lac du Flambeau Chippewa Tribe          14-Jan-87                     PAGE
*****************************************************************************
VII.  SUMMARY                                   CATEGORY               REQUIR
***************************************--------------------------------------
                                          DIRECT FTE                      10.
         COMMUNITY                        SALARIES/FRINGE            $263,04
          HEALTH                          STEPDOWN SUPPORT                 $
         SERVICES                                                   ---------
                                          GRAND TOTAL $              $263,0
                                          TOTAL $ PER CAPITA               $1
*****************************************************************************


-----------------------------------------------------------------------------
VIII.  GENERAL SERVICES & PLANT OPERATIONS
--------------------------------------   ------------------------------------
    OTHER DRIVING           INPUT          OUTPUT      SALRY  FTE     SALARY
      VARIABLES             VALUES        CATEGORY      LVL  NEEDS  & FRINGE
--------------------------------------   ------------------------------------

# ACRES MAINTAINED     [          2 ]
SQ FT INPATIENT                   0    —HOUSEKEEPING  0.6     1.0    $17,86
SQ FT CLINIC/ANCIL                0    —MAINT/GROUNDS 0.6     1.4    $24,70
SQ FOOTAGE IN OFFICES             0      ENGINEERING   1.2     0.1     $3,77
PLANT OPS SQ FOOTAGE   [      6,307 ]    LAUNDRY       0.6     0.0         $
TOTAL FACILITY SQ FT          6,307      FOOD SERVICES 0.7     0.0         $
QUARTERS SQ FOOTAGE    [          0 ]  —DRIVERS       0.6     0.3     $6,06
AREA WAREHOUSE USE %   [       0.0%]   —MATERIALS MNG 0.7     1.2    $26,05
CMR EQUIPMENT VALUE    [     160200 ]
PATRON RATIONS   Y=1   [          0 ]    SECURITY                          $
ACTUAL SECURITY COSTS  [         $0 ]    UTILITIES                         $
ACTUAL UTILITY COSTS   [         $0 ]    RENT/LEASE                   $46,63
UTILITY BUFFER %             100.0%      EQUIPMENT REPLACEMENT        $15,86
ACTUAL RENT/LEASE $    [    $47,088 ]    EQUIPMENT REPAIR              $6,05
RENT/LEASE BUFFER %          100.0%      MISCELLANEOUS SERVICES       $35,49
ISOLATION RATING                  0      ROUTINE MAINT. & REPAIR      $21,93
INDIAN % (CLIN COMPCS)        99.0%
% TRIBALLY OPERATED    [     100.0%]

     ***  OTHER SPECIAL NON-RRM SUPPORT FUNCTIONS  ***
 ... PGM NAME, FTE -> [           0 ]    ACTUAL FTE     1.0     0.0          $
 ... PGM NAME, FTE -> [           0 ]    ACTUAL FTE     1.0     0.0          $
 ... PGM NAME, $   -> [          $0 ]    NON-FTE $ OPERATIONS                $

*****************************************************************************
VIII.  SUMMARY                                  CATEGORY              REQUIRE
***************************************--------------------------------------
                                          DIRECT FTE                        4.
                                          SALARIES/FRINGE              $78,46
         PLANT                            OTHER CHARGES               $125,97
       OPERATIONS                         STEPDOWN SUPPORT                  $
                      :                                            -----------
                                          GRAND TOTAL $               $204,44
                                          $ PER CAPITA                    $13
*****************************************************************************
```

```
Lac du Flambeau Chippewa Tribe          14-Jan-87                     PAGE
--------------------------------------------------------------------------
IX.  ADMINISTRATION (PROGRAM MANAGEMENT)
--------------------------------      ------------------------------------
    OTHER DRIVING           INPUT        OUTPUT      SALRY  FTE     SALAR
      VARIABLES            VALUES       CATEGORY      LVL  NEEDS  & FRIN
--------------------------------      ------------------------------------

SU TRIB. OPERATED? Y=1          1   —MANAGEMENT     1.3    3.0    $112.
# HOSPITALS WITH OPD            0    FINANCE        0.8    3.0    $93.
# SEPARATE HLTH CNTRS           1    PERSONNEL      0.8    0.5    $11.5
DIRECT NON-ADM STAFF         31.9   —OFFICE SVS     0.7    3.0    $41.5
DIRECT NON-ADM $          1687222   —CHS STAFF      0.8    1.1    $26.6
% COLLECTIONS COST          15.0%    DP/RPMS        1.0    1.2    $36.5
BILLED COLLECTIONS $  [$121,618 ]    CNTRCT SUPERV  1.6    0.4    $20.0
ADMIN SQ FOOTAGE      [        0 ]   PLANNING       1.2    0.4    $15.0
# CHS AUTHRZ/TRANS.   [    1,577 ]
TRAINING $ PER STAFF       $1,000    LEGAL FEES                   $12.5
ACTUAL ADMIN. TRAVEL $[  $44,100 ]   HUMAN DEVEL./TRAINING        $51.5
ADMIN. TRAV BUFFER %       100.0%    STAFF RECRUIT./RELOC.        $22.5
OTHER INSURANCE $     [       $0 ]   ADMIN. TRAVEL                $12.5
ACTUAL CNTRACT AUDIT $[       $0 ]   OTHER INSURANCE
ACT. RECRUIT/RELOC $  [     $250 ]   AUDIT/BONDING
RECRUIT/RELOC BUFFER %     100.0%    INSTITUTIONAL DUES             $9.9
ISOLATION RATING                0
INDIAN % (COMPOSITE)        99.4%    GOVERNING BODY               $43.9
MIN. CONTRC. ADMIN. $          $0
% ADMIN TRIB OPERATED [    100.0%]   ADMIN FOR SUB-SU CONTRACT

      ***  OTHER SPECIAL NON-RRM ADMINISTRATIVE FUNCTIONS  ***

 ... PGM NAME, FTE -> [         0 ]  ACTUAL FTE     1.0    0.0
 ... PGM NAME, FTE -> [         0 ]  ACTUAL FTE     1.0    0.0
 ... PGM NAME, $   -> [        $0 ]  NON-FTE $ OPERATIONS

**************************************************************************
IX.  SUMMARY                              CATEGORY                  REQUIR
**************************************************************************
                                     DIRECT FTE                        11
                                     SALARIES/FRINGE               $357.6
                                     OTHER CHARGES                 $153.4
        PROGRAM                      STEPDOWN SUPPORT
       MANAGEMENT                                                 --------
                                     GRAND TOTAL $                 $511.1
                                     $ PER CAPITA                      $?
**************************************************************************
```

```
Lac du Flambeau Chippewa Tribe          14-Jan-87                      PAGE
****************************************************************************
X.  SUPPORT COSTS USING HISTORICAL FUNDING RATES (IDC FOR CONTRACTS)
****************************************************************************
ITEMIZED                      ITMZ. IDC      ITMZ. DIRECT           %       RATE
COST CATEGORIES               $ AMOUNT         $ AMOUNT            IDC   PROJECTE
----------------             ---------      ------------          -----  --------
HOUSEKEEPING                [        $0 ] [             $0 ]       0.0%
MAINTENANCE                 [        $0 ] [             $0 ]       0.0%         $
ENGINEERING                 [        $0 ] [             $0 ]       0.0%         $
LAUNDRY                     [        $0 ] [             $0 ]       0.0%         $
FOOD SERVICES               [        $0 ] [             $0 ]       0.0%         $
SECURITY                    [        $0 ] [             $0 ]       0.0%         $
UTILITIES                   [        $0 ] [             $0 ]       0.0%         $
RENT/LEASE                  [        $0 ] [             $0 ]       0.0%         $
EQUIPMENT                   [        $0 ] [             $0 ]       0.0%         $
GOVERNING BODY              [        $0 ] [             $0 ]       0.0%         $
MANAGEMENT                  [        $0 ] [             $0 ]       0.0%         $
FINANCE                     [        $0 ] [             $0 ]       0.0%         $
PERSONNEL                   [        $0 ] [             $0 ]       0.0%         $
PROCUREMENT                 [        $0 ] [             $0 ]       0.0%         $
RECORDS MANAGEMENT          [        $0 ] [             $0 ]       0.0%         $
PROPERTY                    [        $0 ] [             $0 ]       0.0%         $
TRAINING                    [        $0 ] [             $0 ]       0.0%         $
OFFICE SERVICES             [        $0 ] [             $0 ]       0.0%         $
DATA PROCESSING             [        $0 ] [             $0 ]       0.0%         $
CHS MANAGEMENT              [        $0 ] [             $0 ]       0.0%         $
ADMIN. TRAVEL               [        $0 ] [             $0 ]       0.0%         $
MALPRACTICE INS.            [        $0 ] [             $0 ]       0.0%         $
RISK MANAGEMENT             [        $0 ] [             $0 ]       0.0%         $
OTHER INSURANCE             [        $0 ] [             $0 ]       0.0%         $
LEGAL SERVICES              [        $0 ] [             $0 ]       0.0%         $
AUDIT                       [        $0 ] [             $0 ]       0.0%         $
MISC. SUPPORT/SUPPLIES[              $0 ] [             $0 ]       0.0%         $
----------------             ---------      ------------          -----  ---------
TOTAL                                 0                 $0         0.0%         $0
****************************************************************************
--------SUPPLEMENTAL FACTORS-----------------------------RATES-----------
TOTAL HISTORICAL IHS FUNDING        [                   $0 ]
TOTAL IHS FUNDING IN CONTRACT       [                   $0 ]
    CHARGED AS DIRECT COSTS         [                   $0 ]
    CHARGED AS INDIRECT COSTS       [                   $0 ]       0.0%

--------------SUMMARY------------------------------------------------------
HISTORICAL ITEMIZED SUPPORT COSTS                       $0
    ITEMIZED DIRECT COSTS                               $0         0.0%
    ITEMIZED IDC                      0                 $0         0.0%
RRM PROJECTIONS
    BASE FOR DIRECT SUPPORT RATE                        $0
    BASE FOR IDC SUPPORT RATE                           $0
    COMPARABLE DIRECT SUPPORT                           $0         0.0%
    COMPARABLE IDC SUPPORT                              $0         0.0%
RATE PROJECTIONS
    DIRECT SUPPORT                                      $0         0.0%
    INDIRECT SUPPORT                                    $0         0.0%
ADDED DIFFERENCE
    DIRECT SUPPORT                                      $0
    INDIRECT SUPPORT                                    $0
****************************************************************************
```

Lac du Flambeau Chippewa Tribe 14-Jan-87 PAGE
RRML

## X. SUMMARY -- RESOURCE NEEDS FOR RRM CATEGORIES

| RRM CATEGORIES | FTE | TOTAL REQUIREMENTS | % OF TOTAL |
|---|---|---|---|
| INPATIENT SERVICES | 0.6 | $243,068 | 11.1% |
| AMBULATORY CLINICS | 4.9 | $356,105 | 16.2% |
| ANCILLARY SERVICES | 7.1 | $309,384 | 14.1% |
| OTHER AMBULATORY SVS | 4.9 | $311,182 | 14.2% |
| COMMUNITY SERVICES | 10.3 | $263,041 | 12.0% |
| GENERAL SVS./PLANT OPS. | 4.0 | $204,441 | 9.3% |
| ADMINISTRATION | 11.6 | $511,100 | 23.2% |
| SU GRAND TOTAL | 43.5 | $2,198,322 | 100.0% |
| CONTRACTED PROGRAMS | | $2,198,322 | 100.0% |
| DIRECT PROGRAMS | | $0 | 0.0% |
| AVERAGE SALARY/FRINGE | $31,174 | $1,355,955 | 61.7% |

## XI. SUMMARY -- RESOURCE NEEDS BY BUDGET CATEGORIES

| BUDGET CATEGORIES | TOTAL REQUIREMENTS | % OF TOTAL |
|---|---|---|
| HOSPITAL & CLINICS | $814,614 | 37.1% |
| CONTRACT HEALTH CARE | $476,740 | 21.7% |
| DENTAL SERVICES | $193,132 | 8.8% |
| PUBLIC HEALTH NURSING | $41,648 | 1.9% |
| HEALTH EDUCATION | $0 | 0.0% |
| SANITATION | $54,124 | 2.5% |
| MENTAL HEALTH | $0 | 0.0% |
| ALCOHOL PROGRAM | $0 | 0.0% |
| COMMUNITY HLTH REPRESENTATIVE | $85,029 | 3.9% |
| MAINTENANCE & REPAIR | $21,935 | 1.0% |
| PROGRAM MANAGEMENT (ADD TO H&C) | $511,100 | 23.2% |
| GRAND TOTAL | $2,198,322 | 100.0% |

## INTRODUCTION

The purpose of this grant proposal is to acquire funding for the continuation of the Roads Maintenance Program on the Lac du Flambeau Indian Reservation. The period of funding will begin on October 1, 1987, and end on September 30, 1988.

The Roads Maintenance Program will provide maintenance and repairs to 70.0 miles of BIA designated routes and six bridges. The road system is comprised of 36.7 miles of paved roads and 33.3 miles of gravel and earth roads.

These 70.0 miles of roads serve a community of approximately 2200 year round residents which include a native american population of 1500. Within the boundries of the reservation, there are two schools, one clinic, 28 year round businesses, and one post office and library.

In addition to the above mentioned establishments, there are numerous resorts which also rely on tourist trade. It is the desire of the Lac du Flambeau Tribal Council to continue to maintain all designated roads in a clean, safe, orderly fashion.

## STATEMENT OF NEED

The Lac du Flambeau Band of Lake Superior Chippewa Indians has determined the need to continue the Roads Maintenance Program and is requesting, through this proposal, to conduct and administer the Bureau Roads Maintenance Program on the Lac du Flambeau Reservation. There are presently seventy miles point zero (70.0) miles of designated routes on the reservation, all require year around maintenance and upkeep. The Roads Maintenance Program will provide said maintenance and upkeep of these routes as identified on page 26, in accordance with the program timetable.

Due to funding limitations, the program will employ two (2) program personnel which include a supervisor/manager and a workman. The program will be seeking continuation of the
the future contracting period of 1988-89, through the

With the increasing amount of managerial duties that must be performed by the Supervisor/Manager, a third employee would provide maximum program success, and management activities will be accomplished this fiscal year to address this problem.

## LAC DU FLAMBEAU BAND OF LAKE SUPERIOR CHIPPEWA INDIANS

## LAW ENFORCEMENT PROGRAM

## PROGRAM NARRATIVE

The Lac du Flambeau Reservation occupies around 84,000 acres in northern Wisconsin, primarily in Vilas County. Most of the reservations year round residents are in tribal member households, and the population served by the Tribe is over 2500 people. The local nontribal unit of government, the Town of Lac du Flambeau, is roughly coextensive with the reservation. It has no local police force. Police services formerly were provided by Vilas County, which has no deputies based on the reservation. The county seat is about 40 miles away.

The Tribe has its own court system, funded primarily by BIA self-determination contracts. The Tribe has enacted a variety of ordinances regulating a wide array of subjects, from land use controls through curfew and truancy to divert law enforcement controls. A current list of these codes and ordinances is attached.

The Tribe has not been able to obtain BIA funding to enforce these ordinance, however. The Bureau has always blocked such funding on the basis that Wisconsin is a "Public Law 280" state and law enforcement funding is therefore unavailable. Despite BIA withdrawal in 1987 of proposed rules which would have enshrined this "policy" in regulations, and despite the fact that the Bureau funds some law enforcement programs on P.L. 280 reservations, the agency continues to deny Lac du Flambeau's funding requests.

The only solution to this refusal is a special appropriation specifically for law enforcement on the Lac du Flambeau Reservation for FY '89. The attached budget requests $96,878 for that purpose.

Why should this program be funded? First, the Tribe has taken the opportunity presented by self-determination to revitalize its tribal government, reestablishing its court in 1983 and adopting a wide variety of ordinances regulating conduct of members and those entering tribal lands. These steps in the direction of self-determination are thwarted by the BIA's hidebound policy of restricting law enforcement funding in P.L. 280 states.

Second, the Tribe is faced with a special challenge due to the decision in County of Vilas v. Chapman 122 Wis. 2d 211, 361 N.W.2d 699 (1985), which held that the Tribe has exclusive traffic jurisdiction over members on the reservation. The Tribe has adopted a traffic code and must enforce it through its own law enforcement department. Two state highways cross the reservation.

Third, the Tribe has already established a law enforcement program. Beginning in FY '85 the Tribe has funded its own program with the tribal portion of an Indian Claims Commission judgment fund. It has sent three tribal members through state law enforcement training. One of these officers is working in conservation enforcement, and the other two comprise our law enforcement department. The Tribe has equipped the department and operated it since 1985. The program funds will be exhausted in FY '89 and cannot be replaced by the already meager tribal revenues.

Fourth, the proposal is quite modest. It calls for only two fulltime officers, since some of the criminal work is still handled by the sheriff's department. This is a much smaller department than the BIA generally funds on comparable reservations in a non-P.L. 280 context. Furthermore, the department has already been equipped at tribal expense. This includes two vehicles and the expensive radio equipment.

Finally, and perhaps most importantly, the program involves cooperation with the non-Indian community. We have had close cooperation with the Town of Lac du Flambeau. The Tribe's department is run by a Police Commission which has two non-Indian representatives. Law enforcement has a close working relationship with the Vilas County Circuit Court and the deputies which provide occasional patrol on the reservation. This program enhances cooperation with the non-Indian community.

**GENERAL GOVERNMENTAL**

Election Code

**CONSERVATION AND NATURAL RESOURCES**

Conservation Code
Timber Trespass Code
Water Protection Enhancement Ordinance
Solid Waste Management Code
Boat Registration Ordinance

**TREATY RIGHTS**

Deer Hunting
Trapping
Small Game Hunting
Waterfowl Hunting
Ricing
Ice Fishing
Open Water Fishing

**CHILDREN AND FAMILIES**

Domestic Relations
Child Welfare Code
Ordinance Regulating the Activities of Minors
Name Changes
Domestic Abuse Restraining Orders and Injunction Ordinance
An Ordinance Regulating Open Containers, Disorderly Conduct and Contributing to the Delinquency of Children
Guardianship
Truancy Ordinance

**BUSINESS REGULATION**

Liquor Control Ordinance
Cable TV Franchise
Cigarette Ordinance
Gaming Control
Land Leasing Ordinance
Business Corporation Ordinance

**HEALTH AND WELFARE**

Housing Authority Ordinance
Building Code
Sanitation Code
Animal Control Ordinance
Ordinance Regulating the Sale and Possession of Fireworks

**LAW AND ORDER**

Law and Order Code
Motor Vehicle Code
Gun Control Ordinance

**COURTS**

General Court Provisions (Ch. I, II, III pts. 1 & 2 of Tribal Court Code)
Landlord/Tenant (Ch. III, pt 3 of Tribal Court Code)
Civil Remedial Forfeiture Proceedings (Ch. IV of Tribal Court Code)
Small Claims
Probate Code

## LAC DU FLAMBEAU BAND OF LAKE SUPERIOR

## CHIPPEWA INDIANS

## LAW ENFORCEMENT DEPARTMENT BUDGET

## FY 1989

| | |
|---|---|
| Salaries | $52,580.00 |
| Fringe | 7,887.00 |
| Space Cost | 1,400.00 |
| Insurance | 3,840.00 |
| Travel | 800.00 |
| Xerox | 1,200.00 |
| Telephone | 1,200.00 |
| Supplies | 2,200.00 |
| Fuel/Vehicle Maintenance | 5,200.00 |
| *Miscellaneous Equipment | 1,450.00 |
| Utilities | 2,500.00 |
| *Technical Assistance | 4,800.00 |
| Indirect Cost | 11,821.00 |
| Total: | $96,878.00 |

*indicates item not subject to indirect cost.

BUDGET NOTES

Salaries: Includes salary of two law enforcement officers, a dispatcher/program manager, and a halftime clerk position. All are existing personnel, with salaries figured on the FY '88 base with a 5% increase. Officers salary is $8.27/hr.

Fringe: Computed at 15% of salaries. Insurance not included.

Space Cost: Same as FY '88 budget.

Insurance: Increased from FY '88 budget to reflect increased cost.

Travel, Xerox, Telephone: Same as in FY '88 budget.

Supplies: 10% increase over FY '88 budget.

Fuel/Vehicle Maintenance: 8.3% increase over FY '88 budget to reflect increased patrol activities and aging of vehicles.

Miscellaneous Equipment: Basic equipment for the department has been purchased, but other equipment, such as a base breathalyzer, is still needed.

Utilities: $100 increase over FY '88 budget.

Technical Assistance: This is a consultant services on law enforcement matters to our department, which has young tribal members as officers. This will purchase 20 hrs./mo. @ $20/hr. Current consultant is the retired chief deputy of the Vilas County Sheriff's Department (the county in which the bulk of the reservation is located).

Indirect Cost: Assessed at 15% of the budget items subject to indirect (a base of $78,807).

Senator REID. We will now hear from Jim Sappier, chairman of the Penobscot Indian Nation.

[No response.]

Senator REID. We will hear then from Mark Nephew, Indian Health. Mr. Nephew, if you would come forward.

## STATEMENT OF MARK NEPHEW, ADMINISTRATOR, DETROIT AMERICAN INDIAN HEALTH CENTER

Mr. NEPHEW. Thank you. I am Mark Nephew, the administrator for the Detroit American Indian Health Center. I am speaking today on behalf of the American Indian Health Care Association and the urban Indian health programs.

We appreciate your support and the support of your committee in the past for funding for urban programs. We request that you continue your support by providing $14.5 millon for urban Indian health programs in fiscal year 1989.

The American Indian Health Care Association also supports a realistic budget for the Indian Health Service, and we support full funding for the Community Health Representative Program.

We understand that the administration has proposed a 10-percent decrease in urban Indian health programs. And the reason behind that is that we can pick that up on a fee-for-service basis. That constitutes a 36-percent increase in fee-for-service revenue for our programs.

Last year we experienced a 7-percent decline in fee-for-service revenue, and we don't feel that that is very a realistic picture.

The administration has also proposed that urban Indian health programs be phased out because we have alternative resources available. These resources are not enough. They must be culturally sensitive.

A lot of the urban health programs open the doors to fully utilize alternative resources.

We also understand that the urban Indian coordinator for the Indian Health Service has surveyed some of the State and local and county agencies in terms of alternative funding, and has found that there is virtually no support at the present time for alternative funding for urban Indian health programs.

Most of the State, local, and county governments feel that this is a Federal responsibility. The $14.5 million we are requesting is a $10.159 million increase as continued base funding for the 33 urban Indian health programs; $1 million for paranatal care initiatives; $1 million for AIDS education and preventive initiatives; $1 million for mental health services; $1 million to increase services for existing urban Indian health programs; and $0.341 million for establishment of additional urban Indian health programs.

The rate—the manner in which I listed them is the manner in which we prioritized them. We realize that there are budget constraints here.

We are very concerned in terms of the support that our continuing base funding be—remain the same. That is where the administration has proposed a 10-percent decrease.

The $3.4 million for the establishment of additional urban Indian health programs are programs for cities in which the urban Indian health programs are not currently established.

Fifty percent of the urban population is not served by any urban Indian health program. Two of the major cities that we can think of right off the top of my head are Houston and Buffalo. They have sizable urban populations and do not have urban Indian health programs.

I think our record has shown that we have done a lot with the money that we've received. Fifty percent of the Indian population in this country is urban. And we received approximately 10 percent of the overall Indian Health Service budget.

We have decreased administrative costs from 23 percent to now less than 20 percent.

In terms of the paranatal care, some of our urban Indians are some of the poorest Indians in the urban areas. And our infant mortality has dropped overall throughout Indian Health Service.

However, those figures only reflect the travel programs which the urban programs did not figure into that.

Thank you for your time and consideration.

### PREPARED STATEMENT

Senator REID. Thank you very much, Mr. Nephew. We don't have a copy of your statement, so make sure that we get a copy of that.

Mr. NEPHEW. I was under the impression that you had a copy.

Senator REID. No; we don't have it.

Mr. NEPHEW. OK, I can give you my copy.

Senator REID. That would be sufficient. We will make copies then. Thank you.

Mr. NEPHEW. Thank you.

[The statement follows:]

## STATEMENT OF MARK NEPHEW

Mr. Chairman, on behalf of the American Indian Health Care Association and the urban Indian health programs, I appreciate this opportunity to appear before you today to discuss the Fiscal Year 1989 Indian Health appropriations. In the past years, this Administration has not proposed realistic funding for Indian health services. I recognize and appreciate the support members of this Committee have given to Urban programs in the past. I request you continue that support by providing $14.5 million for Urban Indian Health Programs in Fiscal Year 1989. The American Indian Health Care Association supports the initial Indian Health Service budget estimates of approximately $1.2 to $1.5 billion for Fiscal Year 1989. We support full funding for the Community Health Representative Program.

We understand that the Administration's Fiscal Year 1989 budget proposes a 10% decrease in funding for the Urban Indian Health Program. The Office of Management and Budget has recommended this decrease based upon the assumption that increased fee-for-service reimbursements will offset the decrease in funding. This is not an accurate assessment. Currently it would require a 36% increase in fee-for-service revenue next year to offset such a reduction. This is not likely when the urban Indian health programs experienced a 7% reduction in fee-for-service revenue last year, similar to other health care providers.

The Administration has proposed that Urban Indian Health Program be phased out. Their position was that urban Indian health programs are not needed because there are alternative sources of medical care for the patients that we serve. We who administer these programs know that these supposedly accessible health care resources simply do not exist. I wish to emphasize accessibility. In order for health care services to be accessible, they must not only be geographically near but they must also be culturally close. Clients must be willing to use the health care services if they are to benefit from them. The urban Indian health programs provide truly accessible health care services. We provide culturally sensitive health services to a population that has been historically overlooked by other health care delivery systems.

We understand that the Indian Health Service surveyed the various State and local health departments to determine the amount of additional funding support available to allow a federal phase out and that no additional support was available. Many of the metropolitan health care systems believe that Indian health care is a Federal responsibility. If the urban Indian health programs lose their funding, the urban Indian will "fall through the cracks." I urge you not to allow this to occur.

We request $14.5 million for the Urban Indian Health Program based upon:

1) $10.159 million as continued base funding;

2) $1 million for an AIDS education and prevention initiative;

3) $1 million for mental health services;

4) $1 million for a perinatal care initiative;

5) $1 million to increase services in existing urban Indian health programs; and,

6) $.341 million for the establishment of additional urban Indian health programs.

We are concerned that AIDS will become more evident in the urban population, and we believe that the spread of this disease can be prevented or stopped before it reaches back to the reservation. When an urban Indian is stricken with AIDS, they may return to his home on the reservation. We believe that the urban areas are the place to begin treatment through education and prevention.

Additional funding is requested for mental and behavioral health services. Not only do most Community Mental Health Centers lack the capacity to care for urban American Indians, they also do not have the cultural sensitivity to assist with the unique set of problems present in a culture that has been displaced and largely ignored.

While the Indian Health Service has documented a decline in infant mortality rate among American Indians, this data include only infant mortality in the IHS/Tribal service areas. Infant mortality among urban American Indians is not included. Infant mortality has been increasing in minority, low-income, populations. Several studies have documented the link between poverty and infant mortality or poor perinatal health. Since urban Indians are among the poorest population in the United States, there is no reason to assume that infant mortality is low. Infant mortality among reservation Indians was high until the Indian Health Service made a concerted and determined effort to deal with the problem. The urban Indian health programs have not had the funding available for such an effort.

The urban Indian health programs have continued to improve service delivery to American Indians. Nationally from 1983 to 1987 the urban Indian health programs have reduced administrative costs from over 23% to less than 20%. In the previous year, four of the urban Indian health programs have completed and received JCAH accreditation. Other programs are preparing for accreditation. The average cost last year nationally in the urban Indian health programs was less than $90 per medical user. The average cost per user has remained constant from 1983-1987 in spite of inflating medical care costs averaging over 7% per year.

Last year, the urban Indian health programs nationally exceeded the Indian Health Service evaluation productivity standards by 39%. The proportion of Indian patients to total patients far exceeds the proportion of Indian Health Service funds to total program costs nationally for the Urban Indian Health Program. It has been impossible for programs to increase services to meet demand during the last six years. During Fiscal Year 1987, the urban Indian health programs provided 146,000 outpatient medical visits; 62,000 outpatient dental visits; 117,000 community service outreach and referral direct visits; and 126,000 visits for health education, nutrition, mental health, optometry, substance abuse prevention and other professional allied health services. Programs have ample documentation demonstrating the need to provide increased levels and amounts of service.

Approximately one half of the urban American Indian population resides in urban areas without an urban Indian health program. There are presently eighteen such urban areas meeting the funding criteria in the regulations. As more of the Indian population moves to urban areas, the need becomes apparent for new programs to serve this population.

In addition, we recommend corrective language to include urban Indian health programs in P.L. 99-570, Subtitle C, the Indian Alcohol and Substance Abuse Prevention and Treatment Act of 1986. The regulations governing the administration and enforcement of this bill do not include urban Indian health programs as presently interpreted. The problems of substance abuse and its effects do not respect reservation boundaries. A coordinated effort, including the urban Indian health programs, will prove most effective.

We believe that the implementation of the eligibility regulations should be further studied to determine and clarify the impact of such regulations on urban Indians. It is our understanding that the eligibility regulations do not apply to urban Indians and should not be used in decisions affecting the urban Indian health programs. We oppose the relocation of the Indian Health Service out of Rockville and request that no monies be spent on such a move or even a study of such a move.

We realize that the current system of providing funding for urban Indian health programs on a "historical" basis is tenuous. We support a rational method for allocating monies. In the past, the American Indian Health Care Association has provided data and preliminary resource allocation methods to the Operations Analysis Task Force on Urban Reprogramming and to the Indian Health Service. We will continue to support the development and implementation of a rational allocation method. Having such a rational allocation method is important not only in allocating Title V funds but for allocating funds under the proposed Clinical Staffing Bill.

Mr. Chairman, American Indian and Alaskan Native people have always been a mobile population. Indians residing in urban areas maintain strong ties with their tribes and mirror the same low health status of their reservation cousins. A move to the city does not eliminate serious health, educational, economic and social conditions. To ignore the urban Indian population is to abandon the national goal established in the Indian Health Care Improvement Act, "...of providing the highest possible health status to Indians...". I believe that this goal is achievable and that the health status of urban Indians can be on a parity with the rest of the American population. We thank you for your continued support and asked for your renewed commitment to this national goal through the inclusion of $14.5 million for the Urban Indian Health Program in Fiscal Year 1989.

Thank-you.

## STATEMENT OF DR. EMORY JOHNSON, THE UNITED SOUTH AND EASTERN TRIBES

Senator REID. We will now hear from Dr. Emory Johnson, United South and Eastern Tribes.

Dr. Johnson.

Dr. JOHNSON. Thank you, Mr. Chairman. I am here representing the United South and Eastern Tribes, 18-member tribes in the 10 States along the Atlantic and gulf coasts from Maine to Louisiana.

We express our appreciation——

Senator REID. How many Indians? Ten States, nine tribes?

Dr. JOHNSON. Probably, 30,000 or 40,000.

Senator REID. Thank you.

Dr. JOHNSON. You have already heard from one of the tribes, the Chitimacha.

I would like to summarize very briefly. You have the full, written statement. The summary, there are really two major issues that we are dealing with here. One has to do with funding; and the second has to do with various legislative appropriation language changes and funding the first, and probably the most critical one, has to do with the indirect costs, the management costs, that the tribes have to have if they are going to operate programs.

Under the Indian Self-Determination Act, a principal function for both Congress and the President is to encourage tribes to maintain and operate their own programs.

But, for years, the management costs have been underfunded and tribes have actually had to reduce their program activities in order to have sufficient funding to operate the programs.

That is clearly not consistent with the statute. It is not consistent with the intent of Congress, and not consistent with what every President from President Nixon on through President Reagan has stated is their Indian policy.

And we have to find some way to bring that funding level up to cover actual tribal costs.

Second, in a whole series of other issues, funding law enforcement, tribal court social services, the provision of health services, we are not maintaining current levels of service. There is an erosion each and every year because of the funding that does not meet the mandatory costs.

And I would strongly encourage that the Congress at least try to maintain the current services level.

The second point is number of legislative and appropriation language changes. We have, for example, in S. 1703, an attempt to authorize a block grant program. That is something that we believe should not have been dealt with through appropriation language, but really belongs in authorizing language in the United South and Eastern Tribes, which opposes except as we might do it after extensive hearings and the tribes really understand the changes we're talking about.

The Indian Health Service should have a whole series of changes in appropriation languages, which, on the surface, appears to be very appropriate and fine changes. But, when we look carefully at them, they are potential areas for subverting the intent of the Congress, finding backdoor ways of impounding funds, and ways to coerce tribes into contracting against their will.

We would respectfully request that the committee disapprove these appropriation language changes. I think we have found that, over the last years, there has been real progress made in Indian programs through an effective partnership between the Federal Government and the tribal governments.

But this progress is threatened if we do not maintain the appropriate support for the tribal governments in carrying out these programs.

I am confident that Congress has shown its commitment in the past and I'm very confident that this progress will continue given the decisions that the Congress will make during this appropriation process.

### PREPARED STATEMENT

We thank you and we'll be happy to answer any questions you might have.

Senator REID. I think your statement has been concise and to the point. And I appreciate your testimony.

[The statement follows:]

# STATEMENT OF DR. EMORY JOHNSON

Mr. Chairman, Committee Members and Staff, good morning. USET, headquartered in Nashville, Tennessee is an inter-tribal organization composed of 18 member tribes located in ten states along the east and southern gulf coast from Maine to Louisiana.

First of all, we would like to express our appreciation for having the opportunity to express our views to the Subcommittee on important funding issues before this Subcommittee.

## INDIRECT COSTS

The number one issue common to all USET Tribes is the need for full funding for indirect costs associated with PL 93-638 contracts with the BIA. Each dollar spent by tribal governments subsidizing the BIA shortfall in indirect costs represents lost opportunities for tribes to invest in economic and community development.

We request your support in appropriating $58,000,000 for indirect costs for Indian self-determination contracts in the FY 1989 Bureau of Indian Affairs budget. This is an increase of $12,134,000 over the Administration's request of $45,866,000.

The BIA has requested $45,866,000 for "contract support" (indirect costs) for FY 1989. This is a decrease of $1,521,000 from the FY 1988 appropriation. The FY 1988 appropriation of $47,387,000 will fund only 91% of the requirements for tribal indirect costs associated with PL 93-638 contracts with the BIA. The Bureau's request for FY 1989 will increase that shortfall.

The most serious obstacle to successful implementation of the Indian Self-Determination Act, PL 93-638, has been the failure of the BIA to fully fund indirect costs associated with those contracts. Indirect cost funds are necessary in order to pay for federally-required administrative costs such as annual single-agency audits, financial and personnel management systems, and liability insurance. The OIG is responsible for negotiating and approving indirect cost rates for tribal governments using the guidelines established in Office of Management and Budget Circular A-87.

Because of the BIA's failure to pay their full share of indirect costs on PL 93-638 contracts, tribes have been forced to use tribal trust fund revenues to subsidize those administrative costs. This prevents tribes from using their resources for economic development.

We also request that you oppose the BIA's proposal to transfer the responsibility for negotiation of tribal indirect cost rates from the Department of the Interior Office of Inspector General (OIG) to the Office of Policy, Budget and Administration (PBA).

Instead, we recommend that $400,000 be made available for the Department of the Interior Office of Inspector General as follows: $250,000 for the purpose of funding 5 FTEs to increase the ability of the OIG to meet the workload associated with reviewing, negotiation and approving tribal indirect cost rates; and $150,000 for the purpose of funding a national meeting between the OIG, the BIA, the Indian Health Service, and Indian tribal governments regarding Federal indirect cost policies and procedures for PL 93-638 contracts.

Finally, we recommend that the term "contract support" in the BIA budget be changed to the term "indirect costs" in order to clearly identify the purpose of these funds. We also recommend that "employee displacement costs" be funded in the

**"employee compensation payments" program element, instead of being taken out of indirect cost funds for PL 93-638 contracts.**

**Thank you for your support for tribal self-determination.**

## LAW ENFORCEMENT

Tribal programs for law enforcement have been consistently underfunded for the past ten years. Although the Congress has increased funding for enforcement in previous years, the proposed FY 1989 funding has decreased by two million dollars. Indian tribes now operate almost 70% of law enforcement programs on Indian lands. Less than 50% of the increases have gone to tribal programs but instead have been used to increase staffing and salary levels for BIA officers, and to fund the BIA law enforcement Special Investigations Unit, the Special Operations Service Unit, the Investigations Unit, the Special Operations Service Unit, the Inspection and Evaluation Unit and the law enforcement academy.

Tribal law enforcment costs have increased over the past several years as liability insurance costs and vehicle operating costs have increased. Given the often static or decreasing budgets for tribal law enforcment, staffing and salary levels have suffered, causing high turnover rates and poor morale. The salary for a tribal police captain is often lower than the starting salary for an entry-level BIA officer.

Although funding for BIA CFR courts has increased, funding for tribal law enforcment PL93-638 contracts has decreased. Congress should restore $2 million dollars for tribal law enforcement.

The funding situation for tribal courts has been even worse than the funding for tribal law enforcement. Tribes are expected to deal with increasingly complex judicial matters, including juvenile and family court matters. However, funding for tribal courts has remained static for the past several years.

Tribal Courts show increased funding but adding the (FERS) Federal Retirement Employee monies back to the Tribal court Budget has decreased funding overall.

While the FY 1989 funding for CFR and tribal courts purports to show an increase, when the Federal Retirement Employee costs are factored in, funding avilable to tribal courts is reduced from FY 1988.

## SOCIAL SERVICES

Social Services funding for tribes has been totally inadequate, given tribal concerns with high levels of unemployment, chronic family breakup resulting from alcohol and drug abuase, and increasing rates of child abuse reflecting the increase in non-Indian society.

USET requests that the Committee direct the Bureau of Indian Affairs to identify tribes on band eligible for funding so the tribes may continue to have an efficient method of financial planning without undue conflict with agency determined priorities and allocations. We also oppose the proposed reduction of the FY 1989 budget while at the same time the BIA plans to add 10 BIA employees from a reduced base.

The FY 1988 Continuing Resolution authorized 10 tribes to undertake a study of a BIA consolidated grant approach to funding tribally determined needs. $1 million was set aside from the Indian Self-Determination Grants program appropriation to fund the study phase. Subsequently, the Select Committee on Indian Affairs added a section 209 to S. 1703 which would actually authorize the implementation of the consolidated block grant program for the 10 tribes. Because of the fundamental and sweeping implications that such a program might have not only for the 10 participant tribes but all tribes, more than 100 tribes have expressed their strong desire that section 209 be deleted from S. 1703 and introduced as free standing legislation in order to afford complete and careful consideration of the measure without causing unnecessary delay to the enactment of S. 1703 which all tribes generally endorse.

Some members of the Select Committee and the leadership of the House Interior and Insular Affairs Committee and the Education and Labor Committee also wish to carefully craft and consider implementing legislation seperate from S. 1703.

We recommend that implementing legislation on this matter proceed through the authorizing committees with extensive tribal input rather than being authorized through the appropriations process.

INDIAN HEALTH SERVICES

While the President's FY 1989 Budget requests an increase of $34,841,000 (about 4%) for Indian Health Services, a decided improvement over previous request by this Administration, it would still result in a reduction of health services for Indian people. The following examples will document this:

1. "Program decreases" are admitted in the Budget Justification for:

   a) CHRs (-) $1,528,000/ 139 CHRs (p. 110)
   b) Urban Programs (-) $ 962,000 (p. 117)
   c) Only 2.45 million requested for modernization of hospitals and clinics - no funds requested for new and replacement hospitals and clinics or for sanitation facilities for existing Indian homes.

2. An additional "program decrease" is covered up by the inappropriate diversion of $4 million of Medicare/Medicaid reimbursements to:

   a) Hospitals and Clinics $2,881,000 (p.59)
   b) Contract Health Services $1,119,000 (p.89)

3. Allowances for mandatory costs are not realistic. The rate of inflation in medical care costs in the United States (the real world in which IHS and tribal health programs have to purchase goods and services) is likely to be 8-10% at least, rather than the 4% allowed.

4. The assertion that Urban Indian Health projects can collect enough additional funding to offset the reduction in IHS support is highly suspect. Experience from these projects suggest that third-party resources are also being restricted.

5. There will probably be a "shortfall" in funding for IHS and the Tribal programs this year (FY '89), especially if, as announced, the President does not request a supplemental for pay act costs (that failure alone would create a $6 million deficiency in FY 1989).

6. $2.5 million of the budget request is set aside for "headquarters relocation" (p.4) thus removing these funds from provision of health services.

In addition to the funding requests, there are a number of troubling changes requested in administrative provisions and legislative language.

1. Combining the Indian Health Facilities appropriation (hospitals, clinics and sanitation facilities) with the Indian Health Services (operations) appropriation would make it easier for the Administration to avoid

constructing facilities. It has been difficult enough to get facilities constructed now with the funds in separate appropriation.

2. Providing that IHS appropriations be made "available until expended" would provide additional opportunities for the Administration to withold funding from IHS and the tribes and to bypass the Budget Reform Act. There are many administrative procedures that can be used to delay obligations, carrying the funding over to subsequent fiscal years and then using this "carryover" as a justification for redirecting future years appropriation requests. As an example, the Administration was able to delay construction of the Sacaton, Arizona and Rosebud, South Dakota hospitals for several years, never requesting "deferral" under the Budget Reform Act. It took special appropriation language from the Congress to force the Administration to proceed with Construction. Administrative procedures such as this could be applied to the entire IHS appropriations if the language requested by the Administration were approved.

3. Providing a separate "line item" appropriation for Tribal Health Projects could be a method for coercing tribes to contract in direct violation of the Indian Self-Determination Act. For example, by setting the amount in that account high, funding for programs would only be available for those tribes that agreed to contract. At the same time, those tribes who had decided to require IHS to provide services, would find these programs reduced. Another problem could arise if all Tribal Health Program funding were obligated and another tribe wanted to contract their program. Under the proposed language, there would have to be a budget amendment passed to make the additional funding available in the Tribal health program account. Rather than facilitate self-determination as claimed, this language would actually inhibit it. This could result in delayed funding and loss of necessary services.

In summary, it is USET's view that the President's Fiscal Year 1988 Budget Request for the Indian Health Service, while exhibiting important positive initiatives, remains seriously deficient. To correct these, I would respectfully offer the following specific recommendations:

1. At the minimum, the health programs should be returned to the "current services" level. With the widely recognized deficiencies still remaining in the Indian health program and with many activities marginal at best, if at all possible, consideration should be given to modest increases in essential high priority services.

2. The level of funding necessary to adequately support tribal management of their health programs should be carefully considered. It is difficult to determine from the justification whether the budget request actually addresses the full requirement. My discussions with tribal leaders leads me to believe that the request is still deficient. I'm sure that IHS records would provide the answer and, if a shortfall remains, it should be eliminated if at all possible.

3. Consideration should be given to funding, at least in part, the "Indian Health Care Improvement Fund"; for which an authorization for FY 1989 of $19 million is included in S. 129. This not only would restore an effective process for continuing the efforts to achieve equity in funding Indian health programs but it would also provide a method for timely response to the health needs of newly recognized tribes.

4. The "appropriation language" changes should be rejected. the potential for abuse is just too high to recommend them.

5. The Congress should direct the Administration to cease its practice of "deciding first and consulting last". Rather, the coming months could be productively utilized in a concerted effort by IHS and the tribes to engage in effective consultation to explore proposals for change and opportunities for consensus. Only then should proposals for changes in "administrative language" be presented in the President's Budget Request. In this regard, the Indian Reorganization Act, 25USC§476, states in relevant part. "The Secretary...shall advise such tribe...of all appropriation estimates or Federal projects for the benefit of the tribe prior to the submission of such estimates to the Office of Management and Budget and the Congress". We would like you to direct the Secretary to develop such a consultation process to ensure compliance with the existing law.

6. The modest Indian health facility and Indian Sanitation Facilities Construction program should be continued. While necessary chnages in the Health Facilities Priority System are now being reviewed by the tribal governments, it does not seem wise to delay those projects which have already received intensive study and are ready to proceed. IHS should, however, be directed to proceed as promptly as possible to complete the consultation process with the tribes, obtain agreement and make the nation-wide revisions of the priority listing in time for the next budget cycle.

7. The proposal to relocate the IHS Headquarters to Albuquerque should be rejected and the $2.5 million budgeted for that purpose should be made available for health services. The consultation process recommended in Recomendation 5 would be appropriate to study the organization and management of IHS and the most appropriate relationships between Headquarters, the Areas and the Service Units in addition to any consideration of Headquarters location/s.

8. Although not a specific element in the President's Budget Request, the Congress should direct the Department of Health and Human Services to withdraw the highly controversial eligibility regulations and revisit the consultation with the tribes on this issue.

9. The identification of and justification for the 16 positions shown in "Tribal Health Management" should be provided. It was expected that these funds were to be made available to the tribes rather than for Federal personnel.

10. Indirect Costs

    Tribes have been forced to take indirect costs for PL 93-638 contracts with IHS out of program funds. This forces tribes to reduce direct medical services in order to pay for federally-mandated annual single agency audits, financial management systems, and liability insurance costs.

    The estimated need for tribal indirect costs for PL 93-638 contracts with IHS is $37,500,000. The Congress should appropriate this amount for FY 1989 as a separate line-item. Tribal indirect costs should no longer be taken out of direct health services funds.

History has demonstrated that real progress can be made in elevating the health status of American Indian and Alaska Native people through an effective partnership between the Federal and tribal governments and their respective health staffs. That investment in progress can, however, easily be lost if consistent and demonstrated support is not maintained. Congress has demonstrated its understanding and commitment to this goal ever since the transfer of the Indian health program to the Public Health Service in 1955. I am confident that this progress will continue.

I would be happy to answer any questions that you have for me.

## FY '1989 Budget Request for Indian Health Services

The Indian Health Services (operations) request for FY 1989 is $984,322,000 compared to the FY 1988 appropriation of $949,481,000; an increase of $ 34,841,000 (3.7%). The details by program activity are show in Table 1. Most program activities are allowed an increase in the range of 3-5% except for Community Health Representatives (no increase) Urban Health projects (a decrease of $962,000 or 10%) and Indian Health Manpower (no increase).

The Indian Health Facilities Request is for FY 1989 is $2,450,000 compared to the FY 1988 appropriation of $62,511,000 a decrease of 96%. Basically, the Administration proposes to eliminate the construction of new Indian hospitals, health centers and sanitation facilities for existing Indian homes.

In addition to the funding requests, the President's Budget Report includes a number of changes in administrative provisions and appropriations language:

1.) The Indian Health Facilities appropriation would be combined with the Indian Health Services appropriation.

2.) The IHS appropriation would be divided between Federal services and grants and contracts for Tribal Health Programs.

3.) The IHS appropriation would remain "available until expended" rather than being limited to FY 1989.

4.) $2.5 million would be set aside for IHS "headquarters relocation".

5.) An estimate of $1,003,007 for FY 1990 is provided (prior to this year, budget estimates have been limited to only one fiscal year at a time).

Indian Health Service

BUDGET REPORT OF ACTIVITY

| | 1988 Appropriation | 1989 Request | Increase (+) Decrease (-) |
|---|---|---|---|
| Hospitals & Clinics | $537,000,000 | $556,423,000 | +$ 19,423,000 |
| Maintenance & Repair | $ 11,359,000 | $ 11,756,000 | +$ 397,000 |
| Dental Services | $ 28,974,000 | $ 30,318,000 | +$ 1,344,000 |
| Mental Health | $ 12,466,000 | $ 13,091,000 | +$ 625,000 |
| Alcoholism | $ 29,335,000 | $ 30,959,000 | +$ 1,624,000 |
| Contract Health Services | $183,481,000 | $193,335,000 | +$ 9,854,000 |
| TOTAL CLINICAL SERVICES | $802,615,000 | $835,882,000 | +$ 33,267,000 |
| Sanitation | $ 23,907,000 | $ 24,626,000 | +$ 719,000 |
| Public Health Nursing | $ 14,113,000 | $ 14,467,000 | +$ 354,000 |
| Health Education | $ 4,413,000 | $ 4,651,000 | + 238,000 |
| CHR | $ 27,282,000 | $27,282,000 | - - - - - |
| Hepatitis Program(AK) | $ 395,000 | $ 417,000 | + 22,000 |
| TOTAL PREVENTIVE HEALTH | $ 70,110,000 | $ 71,443,000 | +$ 1,333,000 |
| Urban Health | $ 9,624,000 | $ 8,662,000 | -$ 962,000 |
| Indian Health Manpower | $ 7,646,000 | $ 7,646,000 | - - - - - |
| Tribal Management | $ 3,094,000 | $ 3,218,000 | +$ 124,000 |
| Direct Operations (IHS Manage) | $ 41,392,000 | $ 42,471,000 | +$ 1,079,000 |
| SUBTOTAL INDIAN HEALTH SERVICES | $934,481,000 | $969,322,000 | +$ 34,841,000 |
| Catastrophic Health Emergency Funds | $ 15,000,000 | $ 15,000,000 | - - - - - |
| TOTAL ADJUSTED APPROPRIATION | $949,481,000 | $984,322,000 | $ 34,841,000 |

## STATEMENT OF CHIEF JONATHAN L. TAYLOR, PRINCIPAL CHIEF, EASTERN BAND OF CHEROKEE INDIANS

### PREPARED STATEMENT

Senator REID. We will now hear from Jonathan L. Taylor of the Eastern Band of Cherokee.

We appreciate your patience in waiting here today. I have seen you in the audience and I appreciate your being here this morning.

Mr. TAYLOR. Thank you, Mr. Chairman, for allowing me to appear before this subcommittee. My name is Jonathan Taylor. I am chief of the Eastern Band of Cherokee Indians, and I would like to highlight my statement, my written statement here. And I would like to make this a part of the record.

[The statement follows:]

## STATEMENT OF JONATHAN L. TAYLOR

Mr. Chairman and Distinguished Members of the Sub-Committee on Interior and Related Agencies, I am Jonathan L. Taylor, Principal Chief of the Eastern Band of Cherokee Indians. I wish to thank you for the opportunity of appearing before you today. As you know, our reservation is located in the western part of the state directly adjacent to the Great Smoky Mountain National Park.

### BUREAU OF INDIAN AFFAIRS

One high priority need which we have brought to the attention of your committee in the past is the need for a Tribal Law and Order and Detention Facility. We have worked for years with BIA Eastern Area and Albuquerque on planning and design and have now designed a facility which is approximately half of the BIA's estimate.

BIA listed this as a priority item for FY '87 (Federal Register October 7, 1986 Pages 35701-2) and again in their FY '88 congressional budget submission (page 272.) Now we are told by the Albuquerque staff that we should not expect funding in FY '88 nor FY '89. What is difficult to understand is that several projects were funded by BIA in FY '88 which were not on the priority submission for FY '87 or FY '88.

The Cherokee Tribe has operated our own Police and Fire Department since 1951 at no cost to the federal government. I think you will find this self-sufficient operation somewhat unique in Indian Country. We established a CFR Court in 1980 and yet we do not have a holding facility and our Police Department operates out of the already overcrowded fire station. The Tribal Police therefore, have to transport prisioners off the reservation to be held in county facilities at a great cost to the Tribe in both money and manpower.

In the FY '88 Continuing Resolution the Senate recommended $120,000 to fund the engineering and design of our facility but this was not retained in the Conference Committee. We now ask your committee to please fund the construction of our facility, which has been estimated at $1.0 million or at least fund the $120,000 for the engineering and design.

Another high priority need of our Tribe is BIA assistance in obtaining $3 million for purchase of additional land which is adjacent to our reservation. Our tribe relies more on tourism than any other tribe in the country. Because our reservation joins the Great Smoky Mountains National Park and approximately 13 miles of the Blue Ridge Parkway runs through our reservation, tourism is our number one industry. We have over 10 million tourists annually but only in the summer and early fall, which, results in a boom and bust economy with unemployment reaching 40% to 50% during the winter. In an effort to extend our tourist season and therefore improve our economy, we have completed a three year study, planning and design of a superb resort and golf complex. The cost of construction will come mostly through private investors in a joint venture with our tribe. The facility would be located on a beautiful tract of property which is surrounded on three sides by the reservation. We urgently need $3 million for purchase of this property and would appreciate any assistance this committee can give, including simply a directive to BIA that they work with us to try to devise a loan package that would allow this project to proceed.

In the area of education we are still unable to make ends meet because of the Congressional funding level under the Indian School Equalization Program. Presently, Indian schools are receiving about $2,200 per student whereas the national average per pupil expenditure in public schools is around $3,700. We are not asking for any special treatment but we do ask the Committee to listen to the financial concerns of all BIA funded school administrators and see if you don't hear a similar theme. We hope that some of the progressive language in HR 5 will help but we suspect the only cure will be an overall increase in the total ISEP budget so that all schools can get funding that is more realisticaly in line with the true costs of operating these schools and educating our children. The BIA's allocation for all Indian School's transportation has been reduced each year for the past six years, from $1.45 per mile in FY '83 to $1.27 per mile in FY '88 while the U.S. average cost of school transportation is now approximately $2.00 per mile. Cherokee School has also had a Follow Through Program funded by the U.S. Department of Education for the past 18 years. We just received notice from the Department of Education that we will not be funded for FY '88 which means that our elementary school will not have teacher aids in the lower grades as required by state standards. If there is any hope of our tribe ever working toward self-sufficiency our education program must be funded at a level to permit our youth to get the education which the rest of the country takes for granted.

This fiscal year the Cherokee Agency's Social Service Program is experiencing a shortfall in the amount of $21,800. In FY '87 we received $117,200. In FY '88 we will be receiving only $98,200. We have written to the Eastern Area Office on numerous occasions but have received no results. We will be forced to close down the program if Central or Area Offices can not rectify this. We hope that the FY '89 budget will take this into account.

## INDIAN HEALTH SERVICE

Our next area of concern is our urgent need for a water treatment plant. Each summer, we run out of water for both businesses and individual homes. Water tests indicate that our present water system produces unacceptable bacteriological and chemical contaminant levels. Not only is correction of this problem necessary for our homes but is vital to economic development and tourism. HUD has informed us that they have no funding for this project. We approached BIA and they informed us that this was an IHS responsibility. However, IHS says they cannot assist if the system will serve businesses. There is no way we can design or afford two seperate systems, one for homes and another for businesses. Our businesses are located throughout the reservation and are integral parts of our community. We therefore, ask this committee to direct IHS to work with the Tribe to help us fund this important and urgently needed water plant. Our engineering firm's study estimates the cost of this system at $3.5 million. We leave it to your discretion whether this project would be more appropriately funded through BIA or IHS.

Each year we come to your Committee with funding shortages in our Health Area. Only five months into the fiscal year we have a shortage of $297,000 in contract care and we have been averaging a $600,000 annual shortage even though we continue to operate under priority one for referrals. We are glad to see that IHS realizes this shortage and that they are requesting an increase for FY '89.

We are presently facing a $600,000 shortfall in the hospital and clinic, depending on how much increase is received from FY'88 Congressional appropriations plus Medicare/Medicaid reimbursements. However, in any case we do not see any hope of having funds to adequately operate our hospital. We are still lapsing 15 positions in our hospital which would cost $437,000 to fill. We testified before the House about this two years ago and within 48 hours both IHS Central Office and Nashville Regional Office were jumping and telling us that the Congress was concerned and they were going to have to fix the problem. Within a week, everything was back to normal and we still have the problem.

Mr. Chairman, perhaps you could write to IHS relative to the above referenced problems at Cherokee and ask them to report to you within 30 days on what needs to be done to make our health program whole in contract care, hospital costs and the lapsed positions.

In closing, Mr. Chairman and Distinguished Members, I would like to extend my appreciation to your for providing the opportunity for me to present this testimony. The Eastern Band of Cherokee Indians has enjoyed an extended and productive relationship with the Senate and particularly this Sub-Committee. Through combined efforts, we have become a more successful Tribe. We are extremely grateful for the support and understanding you have provided to the Cherokee Tribe and we look forward to working with you in the future.

Mr. TAYLOR. Our tribe is located in the heart of the Smokey Mountains National Park. Seventy percent of our industry is tourism and we are now trying to build a golf course complex in the Smokey Mountains.

The whole complex is going to cost about $70 million to build.

Senator REID. I'm not sure. This might be competition for Vegas. [Laughter.]

Mr. TAYLOR. We are trying to—when we went into the Under Secretary's Office, they said they wanted to get into the mainstream. And our tribe is one of the unique tribes in the business. We're the only tribe that exercises taxation.

In 1952, we went to the State legislature and got them to instead of collecting State sales tax on our reservation, they let us collect a tribal levy in which we pay our police department, fire department, sanitation department, sidewalks, street lighting out of this money.

We're asking, Mr. Chairman, for the Bureau of Indian Affairs to assist us in a package of $3 million to go out and purchase 300 acres of land to build this golf course complex on.

The land is going to cost $10,000 an acre.

Senator REID. You do not have the land on your reservation?

Mr. TAYLOR. We do not have the land that we can put this golf course on, but we have the land that we want to purchase. It joins our reservation on three different sides.

Also, we are asking Indian Health Service or the Bureau of Indian Affairs chairman, Mr. Chairman, to assist us in a water project. Every summer, we run out of water on the reservation. Even though we are there in the mountains, in the summertime, we just run completely out of water. And we want to build a water treatment plant so that we can provide water—not only to the residents of that area, but to the businesses that we have there.

We have about 180 motels on our reservation. We have——

Senator REID. A hundred and eighty?

Mr. TAYLOR. A hundred and eighty motels surrounding our reservation that we would like to provide with water.

Like I say, Mr. Chairman, we are from a tourist district. And in the summertime, we are the vacation spot of the world. We would like to invite you to come down sometime and see it. It is nothing like Nevada, but we are proud of it. And we are really trying to build it up to where, Mr. Chairman, we would like to be on our own.

And also, a few years ago, the Congress and the Senate gave us money to build a new hospital, but we have never been able to get enough money to staff the hospital.

We are right now 15 physicians short in the hospital because we never could get the funding for it.

Also, our education program, Mr. Chairman, you will see in this statement, we are having problems with our education program. We feel our tribe puts education No. 1 in our priority list. And we feel the only way out for the Indian people is through education.

That is why last year alone, Mr. Chairman, we spent $168,000 of our own money—not the Bureau's money, not State money, but the tribal money—for higher education for our people.

Last year, Mr. Chairman, we are proud that we graduated our first M.D. from the University of North Carolina, which was a lady. And we also graduated our first veterinarian. This is coming out of money, Mr. Chairman, that the tribe has put up on its own just to educate their children.

And we feel that we would like to be self-sufficient. But we need help from the Bureau of Indian Affairs to help us get this way.

We would like to put this golf course in this complex together, Mr. Chairman, and maybe some day you won't have to sit here and listen for the Eastern Band of Cherokees asking for assistance from the Federal Government. Hopefully, some day, we can make it on our own.

I feel the leadership of our tribe is really trying to do this through education. Also helping our people to go into businesses. You know, our own Indian people going into business.

Ninety percent of the business on the reservation is leased but, slowly, as the leases run out, we are taking back over those businesses. We have our own hotel. We have a chain of hotels on the reservation and we're just trying to make it on our own, with some assistance.

We testified, Mr. Chairman, before and got some calls back from that. And I would like to thank this committee again for allowing me and my tribe to be here today.

Thank you, Mr. Chairman.

Senator REID. Mr. Taylor, thank you very much.

I do look forward to coming to your reservation sometime. I would like to do that.

I also would like to extend through you to the two people that graduated, one as veterinarian and one as an M.D., as I understand it, that is a significant accomplishment.

And you are to be complimented for working individually and as a tribe to make that educational opportunity possible for each of them.

Thank you very much.

Mr. TAYLOR. Thank you. And you have an open invitation to come to our reservation, Mr. Chairman, you and your whole staff. Thank you.

Senator REID. Dewey Schwalenberg. Is Dewey Schwalenberg in the audience?

[No response.]

Senator REID. It doesn't appear he is here now. We can do that this afternoon.

Wayne Ducheneaux.

[No response.]

## STATEMENT OF MYRTLE TOLLENSON, TRIBAL CHAIRPERSON, KEEWEENAW BAY TRIBE

Senator REID. Myrtle Tollenson. Myrtle Tollenson will be the last witness this morning. Those witnesses unable to be here because of transportation or whatever, problems, will be invited to testify this afternoon starting at 2 o'clock.

Ms. TOLLENSON. Mr. Chairman, members of the committee, I am Myrtle Tollenson. I am tribal chairperson of the Keeweenaw in the Upper Peninsula. My tribe thanks you for the time provided for me here today.

Our request is twofold, sir. The Keeweenaw Bay is in the Upper Peninsula, Michigan. For generations, we have relied upon the lake's fishery resource for subsistence and commercial purposes. In the last years, because of the troubles we have been having with the State of Michigan in exercising our rights, and also since the decision in 1973, my people have always used the management of the sports in a regulated, efficient way.

Since 1976, we have adopted our tribal code. However, I am here today, Mr. Chairman, to ask for moneys to be made available to the Indian community to have a fisheries biologist on board. At the present time, we do have two BIA officers and also we have been quite fortunate in the past 3 months to have five wardens that are located on the reservation in the Great Lakes Wildlife Commission in Wisconsin.

However, we do not have a biologist on board. And because of the friction that is between the State of Michigan and our tribe, we feel that with the biologist on board that we will be able to work more cooperatively with State officials and with the tribal officials.

My second request today is concerning the health and treatment center on our reservation. For the past 15 years, the Keeweenaw Bay community has operated a tribal clinic and a treatment facility in a building that was constructed in 1928 and used as an orphanage for Indian children.

Today, we maintain three floors of that tribal center with different programs that the tribe has.

In 1985, we were told by Indian Health Service that if we did not improve our facilities at Keeweenaw Bay, that we were in the way of losing our funding.

And so, from 1986 and 1987, the tribal council has listed as their priority the building of a new health facility; and also a treatment center.

At the present time, 1987, we serve approximately 5,000 people through our health services. And then, in our treatment center, we also served approximately 80 clients during 1987.

Now, if we do not get a new facility to help us in further serving our people, and also the people in Wisconsin and Minnesota, we are in danger of losing our funding. It would not only be a harsh record for the tribe. We have 15 employees in each position. And by not having these funds available, we would be in the process of deep trouble on the reservation.

Contract health services this year, we had only to serve our priorities, which are emergency cases on the reservation; and also our elderly. Otherwise, we do not have enough money to carry us through to September 1988 to serve our Indian people.

I would be glad to answer any questions that you have, sir.

Senator REID. I think your statement, and your written statement that you provided to the committee, is certainly adequate and we appreciate you being here today telling us.

Thank you very much.

[The statement follows:]

## STATEMENT OF MYRTLE TOLONEN

Mr. Chairman, Members of the Committee, my name is Myrtle Tolonen and I am the Tribal Chairperson of the Keweenaw Bay Indian Community. On behalf of my Tribal Government I would like to thank you for the opportunity to appear before this committee regarding the Bureau of Indian Affairs Fiscal Year 1989 Appropriation request.

The Keweenaw Bay Reservation is located in Upper Michigan on the shoreline of Lake Superior. For generations my tribal members have relied upon the Lake's fishery resource for subsistence and commercial purposes, however significant shifts in the demand for the resource have become evident. The on-reservation harvest of the lake Superior fish declined 17,000 lbs from 1984 to 1985, whereas the off-reservation harvest increased nearly 350,00 lbs during this period. This harvest rate has continued today with 293,818 lbs of fish being harvested from off-reservation waters in 1987.

While the tribe enjoys the right to harvest this resource we also acknowledge our responsibility to protect and co-manage it for the benefit of future generations. The Council has drafted and adopted a Tribal Commercial Fishing Ordinance; worked to maintain two (2) full-time BIA wardens to enforce on-reservation codes; established a tribal court system to prosecute violators; and negotiated an Inter-Tribal Commercial Fishing Agreement with the Red Cliff and Bad River Bands which is enforced by Great Lakes Indian Fish and Wildlife Commission wardens.

Unfortunately these tribal actions alone will not insure that future demands upon the resource will be met with an adequate supply of fish.

The fishery populations of Lake Superior's Michigan waters are not only experiencing increased demand by sportsmen and tribal user groups but are also impacted by pollution, parasitic lamprey, and a decline in stocking rates. In response to Lake Superior's ever changing conditions, the Keweenaw Bay Indian Community is proposing the establishment of a Tribal Fisheries Management Program staffed with a professional fisheries biologist.

A Tribal Fisheries Biologist will enable the Keweenaw Bay Indian Community to expand its role as a co-manager of the resource and directly address our tribal needs including; facilitating and refining the Tribal Commercial Fishing Ordinance; expanding the tribe's participation in technical working committees; conducting lake trout/whitefish tagging studies and assessments; investigating low cost options to enhance lake trout populations; and expanding cooperation between tribal fishermen, the Tribal Council, and resource management agencies.

The management policies and goals established by the Tribal Council can only be implemented and achieved with an adequate funding allocation. The Keweenaw Bay Indian Community is requesting $82,248 for the purposes stated herein.

It is important to note that the objectives stated within the tribes's proposed FY 1989 Fisheries Management Program do not duplicate but rather compliment efforts of biologists from the Great Lakes Indian Fish and Wildlife Commission and neighboring tribes. Furthermore it is the policy of the Great Lakes Indian Fish and Wildlife Commission to support the efforts of its member tribes to expand their natural resource management capabilities.

In conclusion, we have witnessed the boom-bust economic cycle experienced through the exploitation of our timber and fishery resources and it has left us with a 46% unemployment rate. Today the Keweenaw Bay Tribal Government looks forward to preserving and protecting our resources as a means of providing jobs and income for both ourselves and our grandchildren. I am here today to request the tools and expertise to do so.

## ABSTRACT
## KEWEENAW BAY INDIAN COMMUNITY
## FY 89 FISHERIES MANAGEMENT PROGRAM

The Keweenaw Bay Indian Community is a federally recognized tribe located in Upper Michigan along Lake Superior's Southern Shoreline. Historically, Keweenaw Bay's tribal membership has relied upon the lake's fishery resource for both commercial and subsistence purposes, however significant shifts in the demand for and utilization of the resource have become evident. The on-reservation harvest of all fish species declined 17,000 lbs from 1984 to 1985, whereas the off-reservation harvest increased nearly 350,000 lbs during the period. This off-reservation fishing demand has continued with 293,818 lbs harvested in 1987.

The expansion of commercial fishing by Keweenaw Bay tribal members necessitates the tribe in turn expand its biological monitoring and resource enhancement activities. The tribe is proposing a full-time professional Fisheries Biologist be hired under a BIA 638 subcontract. The tribe further proposes the position be stationed at the Keweenaw Bay Tribal Office to maximize interaction with tribal fishermen and tribal council representatives. The costs of the proposal for FY 89 total $82,248 respectively.

The Keweenaw Bay Tribal Council acknowledges that its tribal rights to harvest Lake Superior's fishery resource also bring about the responsibility of management. In recognition of its environmental, legal, and economic responsibilities. The Tribal Council has drafted and adopted a Tribal Commercial Fishing Ordinance; maintained two (2) full-time BIA wardens to enforce on reservation tribal conservation codes; established a tribal court system to prosecute violators; and negotiated on Inter-Tribal Commercial Fishing Agreement with the Bad River and Red Cliff Bands which is enforced by Great Lakes Indian Fish and Wildlife Commission wardens.

In conclusion, changing social and environmental conditions require the funding of a full-time professional fisheries biologist. This position will enable Keweenaw Bay to develop a comprehensive tribal fisheries management program integrating biological monitoring, resource enhancement, and enforcement of tribal ordinances, thereby insuring the protection of Lake Superior's fishery resource for future generations both Indian and non-Indian alike.

## HEALTH CLINIC AND TREATMENT CENTER

INTRODUCTION: The purpose of this testimony is to request the Congress to join an ongoing effort by the Tribe, the State of Michigan and the Indian Health Service to assure the continued provision of health services and substance abuse treatment to the Indian people of the Western Upper Peninsula of Michigan.

Our specific request is twofold. First, is our immediate need to have Indian Health Service pay for the space allocated for health and alcohol treatment within the present facility. Second, assurance that the Indian Health Service will cover annual operating costs for a facility being constructed by the Tribe to house both programs.

This request is predicated upon our belief that the Congress in creating a priority system for the construction of facilities did not intend to penalize tribes, like ours, who have a demonstrable need for facility and, who, because of their own initiative and effort of self help and self-determination have found solutions to local problems with minimal cost to the federal government.

PROBLEM STATEMENT: Both the substance abuse treatment facility and the tribal health delivery program are housed in the Keweenaw Bay Indian Community Tribal Center Building. Combined both programs occupy 16,452 square feet of space in the 33,500 sq. ft. facility. The building was originally constructed in 1928 for use an an orphanage.

The facility for health and substance abuse services has been publicly characterized by the Indian Health Service, Bemidji Area Director as being the second worse facility in Indian Health. An IHS Headquarters Review Team visited the site the week of March 2, 1987 and were appraised of the serious mechanical and physical deficiencies of the building. (Attachment #1) Several other physical plant surveys have been conducted including the State Fire Marshall whose recommendation was that the building not be approved for use and occupancy.

There exists a minimum of fifty (50) major defects cited by the various reviewers.

In 1985, the Tribe commissioned an architectural study to determine the probable construction cost to renovate the Tribal Center in order for both programs to meet JCAHO accreditation standards. The estimate, adjusted for inflation is 2.335 million dollars which is virtually identical to the cost of construction of a new facility. It was the decision of the Tribal Council that renovation was not feasible because the health facilities would still be located in a sixty (60) year old building subject to major structural problems. The Tribe has committed its own financial resources to construct a new facility at a cost of 2.478 million dollars of which 1.1 million is expected from state and private sources. (Attachment #2 A, B, C, D)

The total cost of housing the programs currently is $91,802. Of this amount IHS pays $18,120. The state pays $27,966 and the Tribe absorbs $45,716 of the total space cost. In order to have the Indian Health Service pay for the true cost of providing services we are told that we are overfunded according to SURAM and that to pay for the cost of space it will have to be a tribal decision on what direct health care service will be eliminated. We believe this to be unfair and bad policy to require a tribe to have to exchange health services for support costs.

For FY88 we request that the Congress appropriate $91,802. In FY89 $128,100. The first fiscal year requests is to assure that the Indian Health Service pays for the space actually used for health and treatment purposes. (Attachment #3) The addition of $36,300 above the base in the following fiscal year allows the provision of services in a facility that meets standards of licensure and accreditation. (Attachment #4)

CURRENT RESOURCES: Except for the physical setting, the Keweenaw Bay Indian Community offers a broad range of health services including medical, dental, social work, mental health, health education, nutrition, community health nursing and outreach that are unparalleled in the State of Michigan. The New Day Treatment Center was identified by IHS in 1985 as being one of the top 6 residential treatment programs inspite of the problems with of the facility.

SUMMARY: We request the Congress to appropriate the necessary funds to enable the Tribe to recover the space cost associated with providing health and alcohol treatment services within the current facility at Keweenaw Bay. We further request that in subsequent years the operating costs (custodial, repair, utilities, insurance) for the replacement facility be appropriated.

This will enable our tribe to provide quality services, solve a critical facility problem and enable the Congress to recognize local community initiative. It is the position of the Keweenaw Bay Indian Community that the priority system is equitable on its face and it is not our intention to circumvent the process. We do contend however, that our own initiatives and the maximum use of non-federal resources should be recognized.

## STATEMENT OF WAYNE DUCHENEAUX, CHAIRMAN, CHEYENNE RIVER SIOUX TRIBE

### PREPARED STATEMENT

Senator REID. We will now hear from Wayne Ducheneaux, who has arrived. Mr. Wayne Ducheneaux, would you come forward?

Please proceed with your testimony.

Mr. DUCHENEAUX. Good morning, sir. I'm sorry I'm late, but I was——

Senator REID. You're not late, we're just early.

Mr. DUCHENEAUX. I should have been here early. I'm sorry. We had previously submitted a detailed analysis of the tribe's needs in order to meet—the tribe and the Bureau and the Department of the Interior—in order to meet the charge that Congress has given them.

We submitted that to your committee members and we have a three page summary of it that we have submitted to you.

Senator REID. The full statement will be made part of the record.

[The statement follows:]

# STATEMENT OF WAYNE DUCHENEAUX

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

THANK YOU FOR THE OPPORTUNITY TO TESTIFY BEFORE THE SENATE ON THE BUDGETARY NEEDS OF THE CHEYENNE RIVER SIOUX TRIBE. I WOULD ALSO LIKE TO THANK YOU FOR THE SUPPORT YOU HAVE GIVEN OUR TRIBE THROUGH YOUR FY88 APPROPRIATIONS FOR OUR LAW ENFORCEMENT PROGRAM AND MOREAU RIVER IRRIGATION PROJECT.

I AM SUBMITTING TO YOU A COPY OF OUR FISCAL YEAR 1989 TRIBALLY DESIGNED BUDGET. THIS BUDGET REQUEST IS A COMPREHENSIVE MULTI-AGENCY (TRIBAL, BUREAU OF INDIAN AFFAIRS, INDIAN HEALTH SERVICE, AND B.I.A. EDUCATION) BUDGET WHICH IDENTIFIES AND ADDRESSES THE UNMET NEEDS AND MORE IMPORTANTLY, THE AREAS OF NON-COMPLIANCE FOR THE PROGRAMS/AGENCIES CURRENTLY OPERATING ON OUR RESERVATION. THESE PROGRAMS ARE IN SERIOUS JEAPORDY DUE TO THEIR INADEQUATE FUNDING, AND IF ADDITIONAL FUNDS ARE NOT RECEIVED OUR PROGRAMS ARE GEARED FOR FAILURE.

MR. CHAIRMAN, I AM HERE BEFORE YOU TODAY TO REQUEST YOUR COMMITTEE TO ADOPT OUR FISCAL YEAR 1989 BUDGET AS A DEMONSTRATION PROJECT. WE FIRMLY BELIEVE THAT OUR COMPREHENSIVE APPROACH TO ADDRESSING THE NEEDS OF THE TRIBE CAN BEST BE ACHIEVED THROUGH CONGRESSIONAL ENDORSEMENT AND COMMITMENT TO OUR TRIBALLY DESIGNED BUDGET OVER A PERIOD OF5-10 YEARS, REALIZING IT MAY BE IMPRACTICAL TO HAVE OUR FY 1989 BUDGET REQUEST FUNDED AT 100%, WE HAVE RE-EVALUATED OUR BUDGET REQUEST AND HAVE SELECTED PRIORITY AREAS FOR THE PROGRAMS/AGENCIES THAT WE FEEL TO BE MOST CRITICAL, ALSO WE HAVE IDENTIFIED THE ONE TIME COSTS OF OUR DEMONSTRATION PROJECT.

MR. CHAIRMAN, I RESPECTFULLY REQUEST YOUR COMMITTEE TO APPROPRIATE A MINIMUM INCREASE OF 2.7 MILLION OF OUR CURRENT FUNDING LEVEL, THIS INCREASE WILL SERVE AS AN INVESTMENT IN OUR PROPOSED DEMONSTRATION PROJECT, WHICH WILL ALLOW US TO IMPLEMENT OUR PROJECT TO THE FULLEST EXTENT POSSIBLE.

I. P. L. 93-638 TRIBALLY CONTRACTED PROGRAMS

| | |
|---|---|
| -LAW ENFORCEMENT PROGRAMS | $ 300,000 |
| -GAME, FISH, & PARKS PROGRAM | 130,000 |
| -CREDIT (ECONOMIC DEVELOPMENT) PROGRAM | 70,000 |
| -WATER RESOURCES PROGRAM | 100,000 |
| SUBTOTAL | $ 600,000 |

II. CHEYENNE RIVER AGENCY - B.I.A.

| | |
|---|---|
| -REAL PROPERTY MANAGEMENT | $ 78,292 |
| -ROADS MAINTENANCE | 103,000 |
| -LAND OPERATIONS | 113,340 |
| -SOCIAL SERVICES | 105,000 |
| -LAW ENFORCEMENT | 47,168 |
| SUBTOTAL | $ 446,800 |

### III. CHEYENNE RIVER RESERVATIONS HEALTH SERVICE

| | |
|---|---|
| -INDIAN HEALTH SERVICE HOSPITAL | $ 350,000 |
| -TRIBAL COMMUNITY HEALTH NURSING | 136,716 |
| -TRIBAL MATERNAL CHILD HEALTH | 147,034 |
| -TRIBAL HEALTH ADMINISTRATION | 66,250 |
| SUBTOTAL | $ 700,000 |

### IV. CHEYENNE RIVER AGENCY EDUCATION

| | |
|---|---|
| -B.I.A. RESERVATION SCHOOLS (7) | $ 417,160 |
| -B.I.A. EXCEPTIONAL EDUCATION | 489,000 |
| -TRIBAL EDUCATION DEPARTMENT | 77,380 |
| -CHEYENNE RIVER COMMUNITY COLLEGE | 30,000 |
| SUBTOTAL | $ 1,013,540 |

TOTAL RECURRING DOLLARS - FY89 $ 2,760,340

### V. ONE TIME EXPENDITURES

| | |
|---|---|
| -P.L. 93-638 TRIBALLY CONTRACTED PROGRAMS | $ 108,440 |
| -CHEYENNE RIVER AGENCY - B.I.A. | |
| BRANCHES | 613,200 |
| FACILITIES MANAGEMENT (RENOVATION PROJECTS) | 3,600,000 |
| -CHEYENNE RIVER RESERVATION HEALTH SERVICE | |
| I.H.S. FACILITIES MANAGEMENT | 2,244,560 |
| I.H.S. HOSPITAL EQUIPMENT | 203,902 |
| TRIBAL HEALTH PROGRAMS | 260,000 |
| -CHEYENNE RIVER AGENCY EDUCATION | |
| FACILITIES MANAGEMENT (RENOVATION PROJECTS) | 1,500,000 |
| B.I.A. SCHOOLS | 180,700 |
| TRIBAL PROGRAMS | 20,400 |
| SUBTOTAL | $ 8,731,202 |

TOTAL NON-REOCURRING DOLLARS FY89 $ 8,731,202

MR. CHAIRMAN, TO ASSURE THAT OUR INCREASE IN FUNDING FOR FY1989 IS PROPERLY IDENTIFIED AS RECURRING DOLLARS APPROPRIATED FOR OUR DEMONSTRATION PROJECT WE ARE REQUESTING THAT WE BE LISTED AS A SEPARATE LINE ITEM IN THE COMMITTEE'S APPROPRIATIONS RESOLUTION.

MR. CHAIRMAN, I AM LOOKING FORWARD TO WORKING WITH YOU AND YOUR COMMITTEE IN PROVING THE WORTHINESS OF OUR DEMONSTRATION PROJECT. AGAIN THANK YOU FOR THE OPPORTUNITY TO TESTIFY BEFORE YOUR COMMITTEE.

Mr. DUCHENEAUX. I would like to read this and then answer any questions you may have.

Dear chairman and members of the committee, thank you for the opportunity to testify before the Senate on the budgetary needs. I would like to thank you for the support you have given our tribe through your fiscal year 1988 appropriations for a law enforcement program, and the irrigation project.

I am submitting to you a copy of our fiscal year 1989 tribal budget. This is a comprehensive multiagency BIA, Health Service, Education budget which addresses the needs for the programs on our reservation.

These are in serious jeopardy due to the inadequate funds, and if the funds are not received, we are geared for failure.

I am here before you to request you to adopt our budget as a demonstration. We believe that our comprehensive approach to addressing our needs would work over a period of 5 to 10 years. It may be impractical to have our 1989 budget requested at 100 percent. We have selected priority areas for our programs that we feel would be most critical.

And we have identified the one-time cost for a demonstration project.

I respectfully request your committee to appropriate a minimum increase of $2.7 million over current funding level. This would serve as an investment in a proposed demonstration project which allows us to implement our project to the fullest extent possible.

The second page is a breakout of the priority items. The bottom of the page is one-time costs, such as maintenance. That has been 10 years in arrears. That has not gotten done. Several safety factors are involved in that, which are all detailed fully in the detailed analysis.

Some is substations for the road departments where the operators spend 38 percent of their time getting to and from the job. And various other things that are one-time costs.

We are requesting that our funding be a separate line item. We are looking forward to working with you and your staff in proving the worthiness of our demonstration project.

We appreciate being able to testify before you and I would be happy to answer any questions you may have.

Senator REID. Mr. Ducheneaux, your tribe is in South Dakota. Is that right?

Mr. DUCHENEAUX. Yes, sir.

Senator REID. How large is your tribe?

Mr. DUCHENEAUX. The tribe at Land Base is about 1½ million acres, and we've got about 6,000 members on the reservation, about 9,000 total enrollment.

Senator REID. I appreciate your testimony here today. You know that Senator Daschle serves on the Indian Affairs Committee.

Mr. DUCHENEAUX. Yes, sir.

Senator REID. And he has talked to me on a number of occasions about the various Indian tribes in the State of South Dakota. And he certainly does a good job of representing Indians of South Dakota.

Mr. DUCHENEAUX. Yes, sir; I would like to say, sir, that the six poorest counties in the nations are Indian reservations in South Dakota.

Senator REID. I have heard that from Senator Daschle.

Mr. DUCHENEAUX. The county part of our reservation is the second poorest.

Senator REID. Thank you very much.

With all of the money problems and what we've heard here this morning, it is a challenge to us, as well as the people who testified, which is why you came to stimulate our interest in your particular projects and all.

We will certainly do what we can to try to satisfy most of the needs.

Thank you very much for being here.

Mr. DUCHENEAUX. Thank you very much, sir. We appreciate it.

## SUBCOMMITTEE RECESS

Senator REID. This subcommittee will stand in recess until 2 o'clock this afternoon.

[Whereupon, at 11:28 a.m., Monday, May 9, the subcommittee was recessed, to reconvene at 2 p.m., this same day.]

(AFTERNOON SESSION, 2:07 P.M., MONDAY, MAY 9, 1988)

## NONDEPARTMENTAL WITNESSES

Senator DECONCINI [presiding]. The Interior Subcommittee on Appropriations will come to order. We will now resume hearings to receive testimony from non-Federal witnesses on programs under the subcommittee's jurisdiction.

This afternoon, we will hear testimony on natural resources, arts, humanities, and miscellaneous issues.

I would like first to describe the procedures here this afternoon. A list of witnesses and their scheduled items, and times of appearances are posted near the hearing room door. Because we have a full schedule and I understand a vote is going to be commencing around 2:45, we are going to have to limit the witnesses, I am sorry to say, to 4 to 5 minutes testimony. Your full statements, however, will appear in the record. So we would ask that you leave your full statements with us and that you summarize those statements.

We must adhere to these time limits for some obvious reasons, and we will use a clock. Our time constraints will not permit us to take a great deal of oral testimony from witnesses who are not on the list, I am sorry to say.

If they care to submit written statements, we will keep the record open until May 23.

Now, as I call each witness, would you please come forward and give three copies of your statement, to the committee, if you have not already done so.

Then take your place at the witness table and begin your testimony by indicating your name and organization. And if anybody is with you, please introduce them for the record.

We will first start with Mr. Lawrence Oaks, National Conference of State Historical Preservation Officers.

### STATEMENT OF LAWRENCE OAKS, CHAIRMAN, NATIONAL CONFERENCE ON STATE HISTORICAL PRESERVATION OFFICERS

Mr. OAKS. Mr. Chairman, I am Larry Oaks, State historic preservation officer for the State of Alabama and chairman of the National Conference of State Historic Preservation Officers, who would like to thank you for inviting us to the hearings and for the part that this committee has played in recognizing the need for funding of historic preservation programs in the United States.

Let me summarize my testimony with three or four major points, so that we can move along quickly.

The very essence of the preservation movement in this Nation is essential to understand, to understand the reason for funding for that and keeping a strong presence and infrastructure going.

It is a cooperative effort of partners both on the public and the private level, at both the National, State, and local arena. Some number of years ago, the Federal Government decided, instead of having a program typical of other departments where you have regional offices to operate programs, to, in fact, call on the individual 50 States and the District of Columbia to work with the National Park Service in preserving this Nation's cultural resources.

The program has grown somewhat over the last 15 or 20 years, but specifically during that time period we have been able to develop a strong infrastructure with the funds that you have given to us at the State level.

That infrastructure is there and ready to service the needs of both the public and the private sector as far as preservation of cultural resources.

What has been happening for the last 6 or 7 years under zero funding recommendations by the President is that those infrastructures have not been used adequately. They are there, incapable of doing much more in the way of preservation of historic and archeological resources of this country.

So it is a unique program and one where the partners both at the State and Federal level must work together to assure that those resources are preserved.

Under your direction last year, the Appropriations Committee, both the House and the Senate, asked for us to do a needs assessment of what the need is out there, so that you could better get a handle on what kind of appropriations are needed.

We had participants from the 50 States and seven territories to go into every congressional district and to canvass and gather information on what the real need is that is out there.

We identified over 2.5 billion dollars' worth of work that needs to be done in conservation of historic resources in this Nation. That seems overwhelming, but when you start to look at all of these partners that are involved, it is something that we and the public and private sector can manage.

That a major part of saving those resources is for the Federal Government to recognize that it has a responsibility to keep these programs alive in each of the States. We will not have a national program if, one by one, because of the lack of support from both the State and the Federal Government, there are not enough resources to keep the infrastructure that is effectively operating now in place.

It is not the responsibility of the Federal Government to fund all $2.5 billion that is needed. In fact, when we start to divide that among the public and private sector and recognize that some resources are important because they are nationally significant, some because of State significance, some because of local, there are a number of partners who are playing a role in this.

For a number of years now, the Congress has recognized the need to fund this appropriation by authorizing it at the level of $150 million a year. Those moneys come from the Outer Continental Shelf lease moneys. The authorization has been $150 million, but the appropriation for the last 7 to 8 years has been only at about the $20 million level.

We need now to recognize that like programs that are comparable to the National Historic Preservation Program, the examples being that national endowments for the Humanities and the Arts being funded at roughly that same authorized appropriation that we are authorized for are similar programs that they can come forward eloquently and speak for the dance, for opera, for humanities, that we within historic preservation have to speak for resources that are there that have no voice, that will be lost unless we speak up for them.

And it is our job to find the delicate balance between the use of public and private funds, to make sure that we generate enough activities in historic preservation to save the largest number of resources that we can.

We think that the full appropriation of $150 million that has been authorized would be a reasonable and responsible effort on the part of the Federal Government to meet its responsibilities.

If that is done, then we can all work together to assure that those resources are systematically saved over the next number of years.

Senator DECONCINI. Mr. Oaks, thank you for your testimony. It will be helpful indeed, and we do appreciate your leadership in speaking out on this issue.

[The statement follows:]

## STATEMENT OF F. LAWERENCE OAKS

Mr. Chairman, I would like to take this opportunity to thank you for scheduling these hearings to discuss the appropriation needs of the nation's historic preservation community and for providing me and my fellow preservationists a chance to offer our testimony. The panel testifying today on historic preservation represents both the public and private sectors and is made up of preservation professionals and gifted volunteers from around the country. It is my pleasure to speak for the fifty states and seven territories which administer the public side of the national historic preservation program. Our organization, the National Conference of State Historic Preservation Officers, has been actively involved in the preservation of this nation's historic resources for more than twenty years now.

The appropriation of Historic Preservation Fund monies at a responsible level is essential to the maintenance of a national preservation program of which we can all be proud. One has only to look at the tremendous growth and institutionalization of the historic preservation movement over the last fifteen years or so to see how the funding of the 1966 act has allowed this nation to adopt a progressive infrastructure for identifying, evaluating and protecting our historic resources. Without these Historic Preservation Fund monies there would be no national historic preservation program. We must never allow ourselves to be deluded to think that a desirable national preservation ethic will evolve from 50, or fewer, isolated preservation efforts. American history is not 50 histories, but rather how the fifty became One. Without increased Historic Preservation Fund appropriations we might find that we could lose those irreplaceable resources that express the history of some states which cannot afford to sustain the preservation effort. We must provide more than just basic levels of funding support to assure that all aspects of our culture are brought into the resource planning and protection system.

The National Historic Preservation Act passed in 1966 and amended in 1980 envisions a dynamic partnership of public and private actors at the federal, state and local levels. It mandates a strong role for the federal government in expanding preservation activities. We must appropriate more Historic Preservation Fund monies if we are to continue an aggressive national program.

The national preservation program which has evolved since 1966 is unique among federal programs in that it is carried out by the states rather than by regional offices as in other U. S. Government programs. This has allowed national policy and direction to be co-ordinated from Washington while allowing for the development of service delivery systems at the state and local levels--where the resources are located and best understood.

The states have, as a result of funding from the Historic Preservation Fund, developed a broad array of programs to help preserve cultural resources. The appropriation must be increased though to meet the debilitating effects of inflation and increased demands made in recent years. Tremendous strides have been made in the identification of resources; a growing percentage of the country has been surveyed. The results of these surveys are being developed into comprehensive state inventories. Increasingly, these inventories are being computerized and will subsequently provide readily available information for planners, developers and other resource users.

Another major area funded by the Historic Preservation Fund is the evaluation of resources for listing on the National Register. Not all inventoried resources can or should be saved. The evaluation process allows us to decide where we need to target our resources so as to use them most wisely and assure ourselves that we are protecting representative resources of all types. The SHPO staffs were able to make 3153 nominations to the National Register in 1986, adding 55,268 structures to that important preservation tool.

The identification and evaluation processes mentioned previously serve as the basis for the implementation of many other programs funded by the Historic Preservation Fund. I will briefly describe a few of these to underscore the need for increased appropriations from the Historic Preservation Fund. The federal tax act incentive program is one of the most successful programs in recent years to preserve commercially used historic resources. It is important to note, however, that even with the desire to assist income producing historic properties with tax incentives, the Congress would not have the means to implement such programs without the network of SHPO offices. Most of the work for reviewing and monitoring the 2.2 billion dollars in construction during 1986 was done by the state staffs. The appropriation of adequate Historic Preservation Fund monies is essential to maintain this partner who administers the tax act program.

Since only about fifteen percent of National Register buildings are potentially eligible for the use of tax incentives, other programs funded by the Historic Preservation Fund are essential to preserve our built environment. Another such program is that of Review and Compliance in which the state provide information and advice to federal agencies so that those agencies can effectively consider and protect historic resources. The states provided information on approximately 59,566 federal undertakings in 1986. Examples of other Historic Preservation Fund program activities include: the development of statewide historic preservation comprehensive plans, operation of Main Street downtown revitalization programs, development and implementation of preservation education programs, distribution of and instruction in technical preservation information; and until 1981, administration of the highly effective development grants program. All of these programs have been made available by historic preservation funding and have been extremely successful and cost effective.

I would like to take a little more of your time to discuss the importance of the development grants program. The loss of this Historic Preservation Fund program in 1981 has led to the loss of numerous cultural resources. To be sure, the tax act has helped with some commercial buildings and some federal agencies are helping to preserve federally owned structures and sites. But this still leaves unprotected the vast majority of cultural resources not covered by those programs. The states are the only public sector partner addressing ALL historic properties in ALL types of ownership at ALL levels of significance.

Responding to your request made in the 1988 budget, the National Park Service and the National Conference of State Historic Preservation Officers have worked together to carry out a needs assessment of preservation groups in the 50 states and seven territories. This was an intensive effort involving hundreds of people in every state and reaching virtually every congressional district in the nation. The response was overwhelming, indicating the need for 2.7 billion dollars worth of stabilization, rehabilitation, and restoration of the nation's historic resources.

The task seems insurmountable; however, it is precisely because of the existence of a strong, efficient infrastructure for historic preservation that we can take on such a task. First, the resources are obviously of national, state, and local significance. So it is not the responsibility of the federal government to take on even a majority of them. The federal government has responsibility for some of that work, but it can call on state and local governments and the private sector to do much. Secondly, the history of this particular program documents that the investment by the federal government of one dollar in preservation efforts will leverage a multi-fold outlay by the private sector, thus producing jobs and a corresponding return of revenue into the public coffers. If the federal government will "prime the pump" and give leadership and direction to the effort, a major synergistic result can be produced. With all the partners working together we can address this need over the coming years. We must get started now.

We would, therefore, like to request that Congress appropriate the amount it authorized for the annual deposit into the Historic Preservation Fund from the offshore oil leases: 150 million dollars. This amount would support all historic preservtion partner activities. The needs assessment has demonstrated the foresight of Congress when it chose the 150 million dollar figure. We feel that these monies should be used for their intended purposes. We ask for your support of this goal!

## STATEMENT OF RUSSELL KUENE, ON BEHALF OF MRS. MORTON, INTERNATIONAL COMMITTEE OF MONUMENTS AND SITES

Senator DECONCINI. We will now hear from Russell Kuene.

Mr. KUENE. Thank you. I'm here on behalf of Mrs. Morton, who was unable to attend today.

Senator DECONCINI. Do you have a prepared statement?

Mr. KUENE. Yes; and I believe Mrs. Morton submitted it for the record in advance.

Senator DECONCINI. We do not have it. Maybe you can find it for us.

Mr. KUENE. I am a member of ICOMOS, which stands for the International Committee of Monuments and Sites. I appreciate the opportunity to testify today in support of international preservation, and I would like to thank the committee for its past support of ICOMOS. Last October, it was the privilege of the United States to host the first general assembly of this organization in the Western World here in Washington, DC. We were pleased to have 700 people from 70 different countries come to see the American experience in preservation.

I will not draw on the general assembly but we were proud at what we have to show the rest of the world in terms of the experience in preservation.

I would like to emphasize this afternoon the importance of the United States continuing its participation in international activities.

The U.S. ICOMOS works closely with a number of private and government agencies to extend their programs to other countries. It is at the National Park Service that our unique role is highlighted.

They turn to us to enhance, extend and, in some cases, even make possible the accomplishment of its international preservation programs.

U.S. ICOMOS maximizes existing preservation programs financed by U.S. private and Federal funds here and abroad. Today, we are requesting a total of $100,000 in the 1989 budget; $70,000 in additional funds over the administration's request of $30,000 in the Park Service budget.

These funds will help maintain a basic core program of our world heritage program. The United States was the first country, in the United States, to ratify the World Heritage Convention, has now been joined by 99 others, in what is regarded as one of the most widely accepted international conventions in the world.

Our programs are focused on the World Heritage Convention and related education public information as called for in the 1980 amendments to the National Historic Preservation Act of 1986.

The intent of these amendments call for some minimal level of Federal commitment to undertake international preservation actions. The Federal funds are important in leveraging private funds.

Each year, our organization has more than doubled the appropriated Federal funds with private funds. There is an extremely broad base of U.S. experience in managing, restoring, and interpreting sites yet to be shared with much of the world, especially with developing countries having world heritage sites.

Our major domestic accomplishment in 1987 for the World Heritage Convention was the successful listing of two additional properties of the United States and the World Heritage list a Chaco culture, national historic park, and a Thomas Jefferson theme, including the University of Virginia and Montecello.

A dramatic increase in the transfer of preservation technology and information was made possible in many ways by Federal support.

One of the activities that we have encouraged to educate the American public about the work of the World Heritage Convention has been with the National Geographic Society, which, at their own initiative, has published a very handsome volume, entitled "Our World Heritage."

It is now one of the best sellers of the society and recognizes the American sites included in this convention.

Thank you for the opportunity of appearing before you, Mr. Chairman.

Senator DeConcini. Thank you very much. We welcome your commitment here. The participation by the Federal Government is relatively minor. We do think your council does a very good job and we appreciate you and Mr. Martin's testimony. We look forward to having the full testimony for the record.

Mr. Kuene. Thank you very much.

[The statement follows:]

# STATEMENT OF TERRY B. MORTON, HON. AIA CHAIRMAN, U.S. COMMITTEE OF THE INTERNATIONAL COUNCIL ON MONUMENTS AND SITES

Thank you, Mr. Chairman, for the opportunity to come before you and your Committee again to present the US/ICOMOS program and its FY 1989 budget request.

US/ICOMOS is unique. It is the focus of the U.S. international preservation technical information exchange -- the only national private organization organized for this purpose.

It collaborates with a number of national, state and local private and government organizations to extend their programs to other countries (the Advisory Council on Historic Preservation, the Smithsonian Institution, the State Department, USIA, the Environmental Protection Agency, the National Trust for Historic Preservation and the American Institute of Architects).

But it is with the National Park Service that US/ICOMOS' unique role is highlighted -- US/ICOMOS is the private partner to which the National Park Service turns to enhance, extend and, in some cases, make possible the accomplishment of its international cultural preservation program -- a legislated responsibility of the National Park Service.

At a time when the greatest possible return must be accomplished with every available penny for a low-funded, nationally significant preservation program, US/ICOMOS maximizes existing related preservation programs financed by both U.S. private and federal funds both here and abroad.

Federal support to US/ICOMOS is authorized by the 1980 Amendments to the National Historic Preservation Act of 1966. These amendments call for the U.S. under the National Park Service to have a role of leadership and cooperation in international preservation through programs in education, public information and training. The amendments also implemented U.S. participation in the World Heritage Convention. ICOMOS is designated in the Convention as the non-governmental organization to carry out cultural heritage programs of the World Heritage Committee.

Today US/ICOMOS is requesting a total of $100,000 in the 1989 budget -- $70,000 additional funds over the Administration's request of $30,000 in the National Park budget.

These federal funds will help to maintain the US/ICOMOS operation and basic core program for which we are requesting $50,000 to be matched by the $50,000 raised from private funds. A second $50,000 is requested for World Heritage programs in the U.S., our priority project, which will be matched by $500,000 raised from private and other public sources for US/ICOMOS special International Technical Projects. The intent of the 1966 preservation legislation and its amendments calls for some minimal level of federal commitment to undertake international preservation actions. These Federal funds can be leveraged by working through US/ICOMOS, a private nonprofit organization. Each year, US/ICOMOS has more than doubled its appropriated federal funds with private funds.

We are most appreciative of the Committee's support to US/ICOMOS in past years, although only $30,000 of the $150,000 requested by US/ICOMOS in the FY 1988 budget was appropriated.

As you are aware, it was the United States that provided initiative and leadership for the concept of a common world cultural and natural heritage and for the development and the implementation of a world-wide system of cooperation to protect our world's heritage. In 1973 the United States was the first country in the world to ratify the treaty. The United States has now been joined by 98 other countries in ratifying the World Heritage Convention. The United States again became a member of the World Heritage Committee in December 1986 after a four-year hiatus.

There is an extremely broad base of U.S. experience in managing, restoring and interpreting sites that has yet to be shared with much of the world, and especially developing countries having World Heritage sites.

A major accomplishment under the US/ICOMOS World Heritage program in 1987 was the listing in December 1987 of two new cultural U.S. World Heritage sites: Chaco Culture National Historical Park and the Thomas Jefferson theme composed of the University of Virginia and Monticello. US/ICOMOS prepared the study and the nomination for the Thomas Jefferson theme for the National Park Service. Hawaii Volcanoes National Park was among the natural sites inscribed. Of the 287 sites inscribed on the list, 16 are in the United States, more than in any other country, other than France which has 16 sites inscribed on the list.

World Heritage Day 1987 announced the publication of the National Geographic Society's four-color volume on Our World's Heritage. US/ICOMOS had initiated the concept of the book with the Society and with the National Park Service and assisted in its production. More than 175,000 copies of the book had been sold prior to its release in October at the 8th ICOMOS General Assembly in Washington.

As may be imagined, every U.S. preservation element has its foreign counterpart in most countries. It is primarily through the ICOMOS network of 70 national committees that technology exchange is accomplished. This is not a one-way street: the U.S. contributes its knowledge to others as it takes advantage of what others have learned.

A dramatic immediate transfer of preservation technology and information was made possible in 1987 by the 8th ICOMOS General Assembly with 45% ($424,523) of the funds coming from the American people through the U.S. Congress ($306,483 or 32% from the National Park Service). The other 55% ($539,035) was donated by foundations, corporations, nonprofit organizations and individuals. They represent the United States population directly concerned with U.S. cultural resources preservation and the sharing of American preservation technology and expertise worldwide.

Some of the ways this transfer of preservation technology and information was made possible by the 8th ICOMOS General Assembly are:

* 500 foreign delegates, the leading professional from 70 countries, participated with 100 American preservationists in a week-long meeting and studied first-hand the U.S. experience.
(Many delegates are responsible for World Heritage sites in their countries. 8 study tours were conducted to local, state and national programs in the nation's capital and nearby cities.)

* USIA hosted delegates from 22 developing nations and Soviet bloc countries at the General Assembly as a portion of their 3 weeks in the U.S.
(Ethiopia, Costa Rico, Ireland, Barbados, Indonesia, Israel, Jamaica, Jordan, Malta, Nepal, Pakistan, Poland, Qatar, Yemen Arab Republic, Somalia, Sudan, Zambia, West Bank, Ivory Coast, Papua New Guinea, Saudi Arabia and Senegal.)

* 2 volumes of 100 symposium papers on the conference theme, "Old Cultures in new Worlds," and the especially produced book The American Mosaic, were available at delegate arrival.
(Issued for domestic and foreign markets, the book tells the story of U.S. preservation before the 1966 National Historic Preservation Act, the first 20 years under the act, and a prediction for the next 20 years under the act.)

* 17 resolutions and recommendations dealing with a variety of cultural heritage issues around the world were adopted.
(Resolutions urged expansion of photogrammetric archives; enactment of an international charter on conservation of villages and rural landscapes; identification and protection of historic woodlands and forest reserves; conservation of Lebanon's cultural heritage; giving priority to training of professionals; relating conservation to contemporary architecture; encouragement of effective collaboration of preservationists and city planners; spreading information on preservation economics; stimulating international standards and laws against air pollution; involvement of youth; safeguarding of small rural communities; communicating ways of financing and legislation; increase of ICOMOS membership and diffusion of information; and the protection of historic shipwrecks.)

* the International Charter for the Conservation of Historic Towns and Urban Areas was ratified by representatives of the 70 nations present.

* 2 traveling exhibits were launched.
(1 on U.S. styles; another on World Heritage Convention programs in the U.S. and around the world being circulated to 17 U.S. World Heritage Sites.)

* 21 international visitors from as many countries served as guest lecturers at 19 university programs around the country at the conclusion of the General Assembly.

* procedures established to form a new ICOMOS committee in China.
(China is one of the countries with which the National Park Service has a cultural accord.

* increased interest in ICOMOS in the United States, with US/ICOMOS membership climbing from 475 in 1986 to 512 (9%) in 1987. There are nine foreign members of US/ICOMOS and nine U.S. citizens who live in foreign countries.

There are 12 ICOMOS international specialized committees: Archaeological Heritage Management, Cultural Tourism, Historic Gardens and Sites, Historic Towns, Inventories, Mud Brick (Adobe), Photogrammetry, Rock Art, Stained Glass, Stone, Training, Vernacular Architecture and Wood.

Six ICOMOS specialized committee gathered for the first time at the same time in the same city at the 8th ICOMOS General Assembly, with 150 delegates meeting around Washington. It is anticipated that a new committee on preservation law will be formed. The U.S. through US/ICOMOS accepted a three-year chairmanship of the Cultural Tourism Committee, which it will accomplish through regional meetings, a newsletter and a conference cosponsored by the National Park Service.

US/ICOMOS is not just a private, national organization and not just a partner with the National Park Service. It is a vehicle that represents the United States' heritage programs to the world -- it is the cultural heritage information exchange program of the nation. Through participation and support of US/ICOMOS, its members and friends believe that they are not only saving their heritage but also helping to forge tangible links for world peace.

US/ICOMOS is the U.S. preservation window on the world.

## STATEMENT OF SID MOSS, PRESIDENT, NATIONAL ASSOCIATION OF STATE FORESTERS

Senator DeConcini. We will now hear from Sid Moss.

Mr. Moss. Thank you, Mr. Chairman. I'm Sid Moss, State forester, Mississippi, and president of the National Association of State Foresters. Our primary responsibility is to conduct forestry work for the public good on State and privately owned forest land.

Collectively, this State forestry agency protects service and manages over 80 percent of the Nation's forest lands, or about 500 million acres.

I appreciate the opportunity to appear before you here today. For today, I would simply like to highlight our recommendations for the State and private programs of the U.S. Forest Service.

The administration's proposed budget for fiscal 1989 is $34,781,000. This is a 51-percent reduction from the amount appropriated in fiscal year 1988. We are calling for maintenance of current programs with increases for the national forest products marketing initiative, urban forestry programs, and a new wildland urban fire initiative.

NASF recognizes an appropriation of $77,803,000. We are asking for an increase of $308,000 over fiscal year 1988 levels. This will maintain Federal involvement at a minimum level in these critical programs.

Gypsy moth worms and pine beetles cannot differentiate between State and Federal boundaries and yet the administration's proposed budget seems to wish that they could.

Early detection through surveys can greatly reduce suppression costs. This cooperative program increases efficiency for both Federal and State agencies.

NASF represents that the cooperative programs be reinstated at a level of $41,825,000. In 1987, fire season clearly demonstrates the need for a cooperative system of fire protection between State, regional, and Federal agencies.

During the height of the wildfire emergency, all available crews from all States and Federal agencies were out West. It would be almost impossible and not cost effective for any single State or Federal agency to gear up to completely handle a disastrous fire season like we had in 1987.

The NASF would like to begin an initiative to address the growing problems associated with the area known as the wildlife urban interface, the area where development meets forested lands; because priorities must be placed on saving homes and people, firefighting crews often had to sacrifice wild land acres.

Firefighters need to be cross-trained in structural and wildfire techniques to successfully fight fires in this expanding interface. The $1 million increase in the fire protection program would be to begin work on an issue to address this growing problem.

The National Cooperative Fire Protection Program provides considerable savings to the Federal Government through shared crews and technical assistance. NASF represents a budget of $14,778,000. We are very concerned with the proposed elimination of forest management and utilization programs.

NASF recommends that these programs be reinstated and increased to $16,800,000. These programs help increase the productivity of nonindustrial forest lands, assist the State in resource planning, increased timber growth and harvest and protect soil and water resources through the management of rural and urban forest resources.

These funds are needed to implement to new and important programs. The Conservation Reserve Program, CRP—part of the 1985 farm bill, and through the existing forest management programs.

The second program is a newly established national marketing initiative. Forest products imports currently exceed exports by about $5 billion a year. This relatively small program provides assistance to expand the range of markets for forest products to reduce the current trade deficit.

That's my statement, Mr. Chairman.

Senator DECONCINI. Thank you very much, Mr. Moss. We appreciate your support of the State foresters and your testimony will be very helpful.

[The statement follows:]

## STATEMENT OF SID MOSS

Mr. Chairman, Members of the Subcommittee, I am Sid Moss, State Forester of Mississippi and President of the National Association of State Foresters. I represent the directors of the state forestry agencies of each state. The primary responsibility of their agencies is to conduct forestry work for the public good on state and privately-owned forest land. Collectively, the state forestry agencies protect, service, or manage over 80 percent of this nation's forest land. They work cooperatively with private, Federal, and other State agencies, organizations, and individuals in directing and strengthening all forestry programs within their states.

I would like to begin today by thanking you for your interest and for providing the $76,495,000 funding for state and private programs in the fiscal year 1988 appropriations.

The following figures represent National Association of State Foresters (NASF) recommendations for state and private cooperative forestry programs for fiscal year 1989 :

| FISCAL YEAR<br>SOURCE<br>(in millions of dollars) | 1989<br>NASF | 1989<br>ADMIN | 1988<br>ENACTED |
|---|---|---|---|
| Forest Pest Management | $41.825 | 28.111 | 41.042 |
| Fire Protection | $14.778 | 3.870 | 13.778 |
| Management & Utilization | | | |
| Resource Management | $5.000 | 0 | 5.000 |
| Wood Utilization | $6.000 | 0 | 2.000 |
| Seedlings, Nursery & Tree Improvement | $1.800 | 0 | 1.800 |
| Urban Forestry | $4.000 | 0 | 2.000 |
| SUBTOTAL FM&U | $16.800 | 0 | $10.800 |
| Special Projects | | | |
| BWCA | $2.800 | 2.800 | 2.800 |
| Gifford Pinchot Inst. | $0.200 | 0 | 0.200 |
| Lake Tahoe | $1.400 | 0 | 1.400 |
| Kellogg, Idaho Gondola | $ 0 | 0 | 6.400 |
| Cache La Poudre | $ 0 | 0 | 0.075 |
| TOTAL S&PF | $77.803 | $34.781 | $76.495 |

NASF requests an increase of $1,308,000 above FY 1988 levels.

The Administration's proposed budget for FY 1989 of $34,781,000 is a 51% reduction from the amount appropriated for FY1988. This proposed budget does not reflect the priority these programs deserve. These programs are critical to the national interest, and include: Fire Protection, Cooperative Pest Management, Marketing and Industrial Development, Conservation Reserve, and transfer of Forest Research to the state and private sector.

The NASF proposal calls for maintenance of current programs, plus increases for the national forest products marketing initiative, urban forestry programs, and a new wildland/urban fire initiative. We would also like to see a continuation of the pest emergency funds provided in fiscal year 1988. NASF recommends an appropriation for these programs of $77,803,000. This level is a 2% increase from that appropriated for 1988 and will maintain federal involvement at a minimum level in these critical programs. Following is a discussion of specific cooperative program needs.

### PEST SUPPRESSION

Gypsy moths, budworms, and pine beetles cannot differentiate between state and Federal boundaries, and yet the Administration's proposed budget request seems to wish that they could. The President's budget eliminates important Cooperative Pest programs, and only provides suppression efforts on federal lands. NASF recommends that the Cooperative Pest programs be reinstated at a level of $41,825,000.

Early detection of developing pest problems is essential to timely suppression and preventative measures. Cooperative forest surveys by State and Federal pathologists and entomologists, are financed, in part, by the Forest Service State and Private budget. Early detection, through surveys, can greatly reduce suppression costs. This cooperative program increases efficiency for both Federal and State agencies.

Adequate pest suppression funds should be made available to cover both anticipated and unanticipated outbreaks on Federal, State, and private forest lands. Funding for a cooperative program at about FY88 levels should ensure adequate resources for national forest projects as well as cooperative projects with state and private landowners where federal interests are endangered. NASF recommends an increase for cooperative survey and technical assistance to raise forest Cooperative Pest Action programs.

## FIRE PROTECTION

Forest and wildfires are other problems that do not respect administrative boundaries. The 1987 fire season clearly demonstrates the need for a cooperative system of fire protection between state, regional, and federal agencies. In 1987, two states (California and Oregon) required the mobilization of over 22,000 personnel from across the country to fight fires that destroyed 837,000 acres and over 38 homes and 36 other structures. The fires forced the evacuation of 15,000 people from their homes. During the height of the wildfire emergency, all available crews from all state and federal agencies were out west. It would be almost impossible and not cost-effective for any single State or Federal agency to gear up to completely handle a disastrous fire season like we had in 1987. Cooperation is the key to good results. Without a national cooperative system, costs will rise due to duplication of efforts and safety records will drop due to unfamiliarity with equipment, improper procedures and reduced personnel on each fire. Regional cooperation will diminish due to the reluctance of state officials to expend their own budgets to train and maintain fire crews to send out of state.

### Wildland/Urban Interface

The wildland/urban interface, the area where development meets forested areas, played a significant role in how these fires were fought. Because priority must be placed on saving homes and people, firefighting crews often had to sacrifice wildland acres. Firefighters need to be cross-trained in structural and wildfire techniques to successfully fight fires in this expanding interface. Training and education programs need to be implemented for crews, citizens, and developers to avoid potentially disastrous situations.

Thousands of new homes are built every year, and increasing numbers are being built in scenic, wooded areas. The problem must be addressed before thousands more are built without adequate road access, fire safety codes, and water supplies. The $1,000,000 increase in the Fire Protection program would be to begin work on an initiative to address this growing problem. The initiative would support interagency efforts to educate homeowners and developers on the need for preventative measures and how to implement them. Current interagency efforts focus on media campaigns and education materials, while the new monies would be used to provide "on the ground" support to communities.

The S&PF fire protection program saves the federal government approximately $40 million in direct costs and $160 million in total direct and indirect costs every year. In addition, the Federal Excess Property Program (FEPP) allows rural fire departments to purchase refitted fire equipment from the federal government, and is responsible for the existence of thousands of rural fire departments.

The national cooperative fire protection program provides considerable savings to the Federal government. NASF recommends a budget of $14,778,000.

## FOREST MANAGEMENT AND UTILIZATION

The President's budget completely eliminates Forest Management and Utilization. NASF recommends that these programs be reinstated and increased to $16,800,000. These funds. represent an investment by the Federal government to assist the States in developing and maintaining a coordinated delivery system for many programs of national interest. These programs help increase the productivity of non-industrial forest land, assist states in resource planning, increase timber growth and harvests, and protect soil and water resources through the management of rural and urban forest resources. In addition, they are required to implement two new and important programs.

The first program is the Conservation Reserve Program (CRP), included in the 1985 Farm Bill. This program is designed to plant a total of 5 million acres to trees on highly erodible farmland to stop erosion, reduce the amount of productive farmland, and protect water resources by reducing non-point source pollution. The CRP can be implemented and administered in part through existing Forest Management programs, such as Forest Resource Management and Seedlings, Nursery, & Tree Improvement.

The second program is the newly established National Marketing Initiative Program of the Wood Utilization program. Forest product imports currently exceed exports by $6 billion and contribute to the growing trade imbalance. This relatively small program, administered by S&PF, provides marketing assistance to expand the range of markets for forest products to reduce the current trade deficit.

**Urban Forestry**

Today, 80% of the U.S. population live in urban areas. The majority of this urban population will never visit our National Parks and Forests, but depend on their local, urban forests for recreation and other opportunities. The combined economic and environmental value of urban and community forests far exceeds the reasonable cost and effort required for its proper management . Properly maintained urban forests: increase property values, lower energy costs, reduce air pollution and sediment runoff, attract tourists and new businesses. Unfortunately, our urban and community forests are deteriorating. NASF recommends an increase to $4,000,000 for an urban and community forestry program.

SPECIAL PROJECTS

NASF recommends that the committee retain 1988 levels for the Boundary Waters Canoe Act, Gifford Pinchot Institute, and Lake Tahoe projects.

NATIONAL FOREST SYSTEM

State Foresters thank you for reversing the declining trend in the research budget of the USDA Forest Service. Continued increases in that budget at the agency's request of $149,125,000 is ardently endorsed by NASF.

Senator DECONCINI. Mr. Rey.

## STATEMENT OF MARK REY, NATIONAL FOREST PRODUCTS ASSOCIATION

Mr. REY. Thank you, Mr. Chairman. In the interest of time, I will merely summarize this statement for the record, which we have already submitted.

I am Mark Rey, with the National Forest Products Association. I am here today to talk about funding levels for the National Forest System, part of the U.S. Forest Service budget.

Funding levels proposed in the administration's fiscal year 1989 budget request for the National Forest System, including a program, which, as you may suspect, we are most interested in, the timber sales program, are in our view inadequate, particularly in light of today's market demands for wood products.

What I would like to do with the majority of my time is to talk about where we are as a Nation right now in terms of demand for wood products generally, and Forest Service timber sales specifically.

In 1987, we used as a Nation 50 billion board feet of lumber. That is a record which we have never achieved as a Nation. It broke the previous record in 1986, which, in turn, broke the previous record set in 1985, which in turn broke the previous record set in 1984.

And by that sort of repetitiveness, what I am saying is that we are in a period of unprecedented demand for lumber consumption. Despite that level of demand, the Forest Service timber sales program over the ensuing 4 years has been relatively flat.

Annual harvests of Forest Service timber exceeded the sales level made possible by appropriations from the Congress in 1985 and 1986, and by a very large margin in 1987.

In your Forest Service region, Arizona and New Mexico, harvest exceeded sales in 1984 as well, which means simply stated that we have been utilizing more timber from contracts already purchased than Congress has been providing for the last 3 years running nationally, the past 4 years, running in your State.

We cannot continue to do that indefinitely and still meet market demand. We are ultimately going to run out of timber unless that situation changes.

The volume of timber the Forest Service purchasers currently hold under contract is less than 2 years of supply; for some mills in Arizona and New Mexico, less than 6 months supply.

What that means is that those mills are in perilous straights in terms of being able to borrow any investment capital and in most extreme cases in jeopardy of closing down or curtailing operations for lack of raw material to supply levels of domestic demand.

We believe that the Forest Service timber sales program for fiscal year 1989 should be increased from the administration's recommendation from 11.2 billion feet to 13 billion feet of volume.

We commit that recommendation as outlined in the materials that we have submitted to you for the committee's record through an exhaustive review on a region-by-region basis of current sales and harvest levels, looking at the demand for Forest Service timber needed by mills that are dependent upon that as their major or sole source of supply.

We believe that the recommendation is consistent with environmental and other land management constraints and is well within the constraints imposed by the Forest Service plans governing the long-term management of each unit of the National Forest System.

At this point, I think I will conclude my statement and provide you time for any questions that you might have.

## PREPARED STATEMENT

Senator DeConcini. Thank you very much. We appreciate your statement and your full statement will appear in the record.

I have no questions at this time. Thank you.

Mr. Rey. Thank you.

[The statement follows:]

# STATEMENT OF MARK REY

## I. Introduction

This is the statement of the National Forest Products Association (NFPA) on the FY 1989 Forest Service budget for elements of the National Forest System's programs. NFPA is a national, industry trade association which represents the interests and views of owners and managers of forest lands, manufacturers of forest products and affiliated and regional product associations. Many of NFPA's members are dependent, in whole or in part, on timber from the national forests for their raw material supply. In the interest of the conforming this statement to the requisite length, we are also submitting additional materials to the Subcommittee elaborating on the material below.

## II. The Demand for U.S. Wood Products is Continuing at Record Levels.

This past year marked the fourth consecutive record year for lumber consumption in the United States. Domestic demand for softwood lumber during 1987 surpassed 50 billion board feet, an all-time record and an increase of over 6 percent from the previous record set in 1986. The average yearly demand for softwood lumber since 1984 has been 46 billion board feet. This compares with only 40 billion board feet during the late 1970s -- a time of an undisputed boom in our industry.

These unprecedented levels of demand have continued unabated into 1988 despite a slowdown in new house construction. There are four reasons for this. First, the repair and remodeling market is booming. Expenditures for residential repair and improvement reached an all time high in 1987. Second, single-family homes, which use more wood, accounted for over 70 percent of new housing starts last year. Moreover, these new homes were bigger -- the average area of a new, single-family home in 1986 was 8 percent greater than in 1982. Third, non-residential construction -- such as commercial buildings, shopping centers, schools, and churches -- represent a market for wood products which has increased steadily since the early part of this decade. Fourth, exports of finished wood products reached record levels in 1987 and these records will be broken in 1988. In our view, 1988 will be a solid year for wood products demand and will continue the pace of the past four years.

## III. Demand for National Forest Timber is Similarly Setting Records.

The demand for Forest Service timber has also never been greater. This extreme level of demand is reflected in: (1) several consumption records set in the past fiscal year; and (2) the continued increase in Forest Service stumpage prices.

In fiscal year 1987, a record 12.7 billion board feet of timber was harvested from the national forests. This exceeded the previous year's harvest by over 900 million board feet. In addition to a record harvest level, fiscal year 1987 brought a record level of timber receipts to the U.S. Treasury. A total of $1.016 billion was collected in payments for harvested national forest timber.

At the present time, the industry cannot obtain sufficient Forest Service timber to meet its needs. As a consequence, timber volume under contract is dropping dramatically. We now have slightly less than 2 years of volume under contract -- a dangerously low level of supply. This continuing erosion of volume under contract limits purchasers' ability to attract investment capital. It is essential that we deal with this situation to help ensure stable employment in communities dependent on Forest Service timber.

## IV. In Light of Current Record Levels of Lumber Demand, and Rapidly Declining Volume Under Contract, the Industry Recommends an FY 1989 Forest Service Timber Sales Program of 13.0 Billion Board Feet.

The wood products industry recommends that the national forest timber sales program for FY 1989 be increased from the President's proposed level of 11.208 billion board feet to 13.0 billion board feet. In our additional materials for the record, we provide a region-by-region analysis of the industry's recommended timber sale program. Our analysis is based on a careful review of recent harvest and sales levels in each region.

## V. The Forest Service Timber Sale Program is Profitable and Provides a Strong, Positive Return to the U.S. Treasury.

The Forest Service timber sale program is rare among federal programs in that it returns money directly to the U.S. Treasury -- money that can be used to offset the cost of other federal government programs, including other Forest Service natural resource management and protection programs.

The recently-released annual report of the Forest Service indicates that, in FY 1987 the timber sales program cost $478,667,000, brought in $1,016,000,000, and thus generated a profit of $537,333,000 -- a 112% return on investment. The value and profit figures both represent a record.

More importantly, this trend will continue. Last year, the Forest Service testified that the FY 1988 timber sales program would cost $480 million, bring in $802 million, and net $322 million. However, this estimate was based on an anticipated FY 1988 harvest of 11.8 billion board feet with stumpage prices of $103 per thousand board feet for sales bid during the course of the year. Based upon recent data, however, a better estimate of FY 1988 harvest given today's markets would approach 12.2 billion board feet. Moreover, bid prices during the first quarter of the fiscal year in Regions 5 and 6 -- the Regions with the largest timber sales programs -- have actually averaged $175 per thousand board feet.

The FY 1989 program will be similarly profitable. We believe that, with changes to the Agency's contract length and increases in its downpayment requirements, the program will return a net profit to the Treasury in FY 1989 alone. Our detailed calculations on this matter are provided in the additional materials for the record.

## VI. The Forest Industry Recommendation for a 13 Billion Board Foot FY 1989 Timber Sales Program is Fully Consistent with the Present Direction and Available Results of the National Forest Planning Process.

Our request for 13 billion board feet is environmentally sound and consistent with the present direction of the forest plans currently being developed under the National Forest Management Act of 1976. However, while the national forest planning process is progressing, it is not yet complete. Many plans must still be finished, and even more appeals need to be resolved. Long term decisions should not be made on plans that are not yet final. Clear legal direction exists for continued operation of the national forests under the existing plans.

More broadly, the Appropriations Committee's yearly evaluation of Agency funding needs should not conflict with the longer term decisions embodied in the forest plans. In the appropriations process, you fund the Forest Serivce to achieve timber targets on a yearly basis. By contrast, the forest plans express timber outputs on a decadal basis, allowing out put levels to fluctuate from year to year. This ability to fluctuate provides the flexibility to respond to changes in demand.

Additionally, the allowable sale quality (ASQ) expressed in forest plans does not include all of the timber volume or products considered in the budgeting process. For example, things like firewood, cull material, some pulpwood, and fire-killed timber must be budgeted above the ASQ. The plans, therefore, display a narrower output measure than the Agency's budget requests and accomplishment reports

Finally, it is important to recognize that the Administration's budget request for FY 1989 contains 500 million board feet of volume in Region 6 returned to the government under the Federal Timber Contract Payment Modification Act of 1984. Moreover, the Forest Service estimates that approximately 300 million board feet will be defaulted in FY 1989 and will need to be resold. This 800 million board feet of FY 1989 volume does not count against the ASQ in the draft NFMA plans in the Region because it was deleted from the timber inventory prior to the calculation of the ASQ.

In summary, we believe that the ASQ in the new forest plans, combined with the other budgeted outputs and the resale volume, could produce a sale program in FY 1989 as high as 13.325 billion board feet in a fashion consistent with these plans. Our detailed calculations are included in our additional materials for the record.

VII. The Timber Sale and Forest Service Road Programs Have Not Prospered at the Expense of Other Programs.

One of the most widely repeated misconceptions about the Forest Service timber sale and road programs is that the Forest Service accomplishments in these program areas have wildly exceeded the Forest Service's performance in other areas. This assertion is untrue.

Relative to both long-range goals -- as identified by the Resource Planning Act report -- and short-range objectives -- as approved by Congress in funding legislation -- the Forest Service timber sale and road programs have neither fared substantially better nor substantially worse that other resource programs.

VIII. Conclusion.

Thank you for the opportunity to offer this statement. We would be pleased to work further with the Subcommittee to clarify any issues raised, or to respond to any questions.

## STATEMENT OF ERNEST SHEA, VICE PRESIDENT, NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS

Senator DeConcini. We will now hear from Ernest Shea, National Association of Conservation Districts.

Mr. Shea. My name is Ernest Shea. I am the executive vice president of the National Association of Conservation Districts. I appreciate the opportunity to appear here today before you.

### PREPARED STATEMENT

With your permission, I will submit my written comments for the record and just read the highlights of several of the key points that we would like to make.

[The statement follows:]

## STATEMENT OF ERNEST SHEA

Mr. Chairman, distinguished members of the subcommittee, my name is Ernest C. Shea, and I am the Executive Vice President of the National Association of Conservation Districts (NACD). NACD represents the almost 3,000 soil and water conservation districts of this country and the more than 15,000 men and women who serve on district governing boards.

Conservation Districts are autonomous units of state government organized at the local level to coordinate and carry out natural resource management programs. Since the first district was formed more than fifty years ago, they have provided local leadership to cooperative local-federal-state efforts to improve the condition of our soil and water resources. Although conservation districts were originally established to correct the serious erosion problems that were prevalent during the Dust Bowl days, over the years their programs and responsibilities have been broadened substantially. Conservation districts now have responsibility for coordinating a broad-based natural resource management program at the local level. In addition to cropland erosion control, conservation districts are also actively involved with forestland management, wetland protection and enhancement, urban sediment and erosion control, nonpoint source pollution abatement, wildlife and fish habitat management and many other renewable natural resource management activities.

Today I would like to provide you with NACD's comments for the proposed fiscal year 1989 funding levels for several programs of the Forest Service, the Bureau of Land Management, the U.S. Fish and Wildlife Service and the U.S. Geological Survey. Our specific recommendations for these programs are contained in the NACD Funding Resolution.

The FY 1989 budget that the President submitted for these agencies once again proposes that federal agencies step away from their cooperative working relationships with state and local entities. Again we are seeing that the definition of federalism has come to mean an end to the partnership approach of managing our resources. Without cooperation and coordination of efforts among all federal, state and local resource management agencies, overlapping responsibilities and reduction in efficiencies will occur.

### U.S. Forest Service

Two good examples of federal resource management efforts cooperating and integrating effectively with state and local efforts can be found with the Forest Service's Forest Pest Management Program and the Rural Fire Protection Program. Both of these programs augment and enhance state, local and private efforts to prevent the degradation of this nation's forest resources.

If the federal government abandons its role in these cooperative programs, we will see an increase in the damage done to private forest lands from pests and fires. This will result in less harvestable timber from these lands, which in turn means increased pressure for harvesting from the public lands. In addition, this action could also result in the private lands becoming the source for pests or fire which could destroy public timber supplies.

Degradation of private forest land will also have an impact on water quality, wildlife habitat, and recreational opportunities. For this reason, NACD's members have called for Forest Pest Management to be funded at $41 million for FY 1989 and the Rural Fire Protection program to be funded at $14 million.

One other Forest Service program of interest to NACD's members is the Forest Management and Utilization Program. USDA has proposed eliminating this valuable program which provides private timber owners with better management strategies, with new markets for their products, and with sturdy seed stock for replenishing this renewable resource. In addition, this program also contains funding for the Forest Service's urban forestry initiatives.

The recommendation to terminate this program ignores current efforts aimed at revitalizing rural economies and enhancing rural resources. By providing small timber owners with assistance in managing their resources, developing new markets, and increasing their profits, the program results in an improvement not only in the quality of rural life, but also the quality of our environment.

NACD recommends that the Forest Resource Management; Seedlings, Nursery, and Tree Improvement; and the Urban Forestry programs be funded at the same levels as the current fiscal year. In addition, we would urge you to appropriate $6 million for the Wood Utilization program to accelerate the national marketing initiative to identify new uses for products of these lands.

Regarding the National Forest System, we believe that the agency's Wildlife and Fish Habitat Management Programs should be expanded to meet the demands being placed on them by the public. Accordingly, we urge you to appropriate $59 million for these programs in FY 1989. NACD also recommends that funding for the agency's Range Management and Betterment programs be maintained at current year levels.

## Bureau of Land Management

BLM has the broad and difficult mission of managing vast acreages of public land. Given the broad array of diverse and sometimes competing uses for these lands, it is critical that the agency be provided with the resources that are needed to ensure that these uses can be accomodated without causing degradation of the resource base. For this reason we recommend that BLM's Soil, Water and Air program be appropriated $25.9 million for FY 1989.

In line with the multiple-use concept, we believe that sufficient funds should be allocated to the agency to allow it to properly manage the forage resources on federal lands. In making this recommendation, it is also important to note that forage resources are utilized not only by domestic livestock, but also by wildlife. NACD recommends that the Grazing Management program be appropriated $35 million for FY 1989.

The wildlife which exists on lands managed by BLM are an important part of our American heritage. In addition to what are considered common wildlife species, federal lands are home to many of our endangered species and many of the nation's wild horses and burros. As BLM also has the responsibility for managing this important resource, we recommend that the Wildlife Habitat Management program be appropriated $21 million and the Wild Horses and Burro program be appropriated $14 million in FY 1989.

## U.S. Fish and Wildlife Service

Over the past several years the U.S. Fish and Wildlife Service has been conducting a pilot project to restore and enhance important habitat areas that are being retired from crop production under USDA's Conservation Reserve Program. In FY 1988 $1.2 million was appropriated for this work. The Service has been using these funds to rebuild and reconstruct wetlands of benefit to migratory waterfowl. We recommend that $5 million be provided for this program in FY 1989.

I would also like to address an item not covered in our funding resolution, but which was of genuine concern to our members when they met earlier this year at our national convention. The Fish and Wildlife Service is currently spending $5 million annually to complete the National Wetlands Inventory. While we recognize the value and need to quantify this resource, district officials have some concerns with the mapping process. Our members are telling us that the maps being developed under this program often contain glaring errors. Areas that have been identified on these maps as wetlands include manmade irrigation structures, artificial livestock watering structures, and naturally occuring stormwater runoff channels.

Our concern centers on the fact that much of the mapping is done by interpretation of aerial photography, with limited ground testing. If this inventory process is to provide valuable information to resource managers, it must contain accurate data. NACD believes that Congress and federal and state agencies cannot make correct wetlands management decisions if the information being generated from these maps is incorrect. We would urge this committee to examine this issue closely as you prepare to make FY 1989 appropriations for this program.

U.S. Geological Survey

Our funding resolution provides you with two recommendations for USGS. Both programs referenced play a very important role in planning future conservation activities. The National Mapping, Geography and Surveys program provides vital information necessary for the development of watershed protection plans and soil surveys. The Water Resources Investigations program yields valuable information on surface flows, ground water, and water quality. Because accurate background data is essential to development of a comprehensive conservation program, NACD urges you to provide funding equal to this year's appropriation for these two programs.

Thank you for providing our association with the opportunity to comment on the President's proposed FY 1989 budget for the agencies I have described this afternoon, and I would be glad to attempt to answer any questions that you may have.

### NACD FY89 FEDERAL FUNDING RESOLUTION
### ADOPTED BY THE NACD COUNCIL
### 42nd ANNUAL CONVENTION
### JANUARY 31 - FEBRUARY 4, 1988
### LITTLE ROCK, ARKANSAS

| | FY 88 APPROPRIATION | PRESIDENT'S FY 89 BUDGET | FY 89 NACD RECOMMENDATION |
|---|---|---|---|
| | | (in millions) | |
| SOIL CONSERVATION SERVICE | | | |
| Conservation Operation | 443.9 | 455.2 | 475 |
| River Basins | 12.1 | 9.8 | 12 |
| Watershed Planning | 8.7 | 8.2 | 12 |
| Watershed Operations | 160.8 | 95.4 | 200 |
| RC&D's | 25 | 25 | 35 |
| Great Plains | 20.5 | 6.0 | 22 |
| TOTAL SCS | 676.1 | 599.6 | 756 |
| FUNDS TRANSFERED TO SCS | | | |
| Office of Surface Mining (RAMP) | 15.0 | 0 | 20 |
| NPS Technical Assitance (304 k) | 0 | 0 | 25 |
| AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE | | | |
| Conservation Reserve | 1,131.0 | 1,864.0 | 2,200 |
| ACP | 176.9 | 0 | 200 |
| FIP | 11.9 | 0 | 13 |
| Water Bank | 8.4 | 0 | 10 |
| Colorado River Salinity Control Program | 4.9 | 0 | 5 |
| AGRICULTURAL RESEARCH SERVICE | | | |
| Soil & Water Conservation Research | 60.8 | 66.6 | 67 |
| ANIMAL AND PLANT HEALTH INSPECTION SERVICE | | | |
| Animal Damage Control | 24.4 | 13.0 | 25 |
| COOPERATIVE STATE RESEARCH SERVICE | | | |
| Hatch Act | 155.5 | 155.5 | 155 |
| McIntire-Stennis | 17.5 | 13.0 | 18 |
| Rangeland Research | .5 | 0 | 1 |
| COOPERATIVE EXTENSION SERVICE | | | |
| General Formula Funds | 241.6 | 228.5 | 242 |
| Earmarked Programs | 73.8 | 68.2 | 74 |
| Renewable Resources Extension Act | 2.8 | 2.8 | 15 |

|  | FY 88 APPROPRIATION | PRESIDENT'S FY 89 BUDGET | FY 89 NACD RECOMMENDATION |
|---|---|---|---|
|  |  | (in millions) |  |
| FOREST SERVICE |  |  |  |
| Forest Pest Management | 41.0 | 28.1 | 41 |
| Rural Fire Protection | 13.8 | 3.9 | 14 |
| Forest Management & Utilization | 10.8 | 0 | 15 |
| Range Management | 29.2 | 26.3 | 29 |
| Range Betterment Fund | 3.6 | 3.9 | 4 |
| Wildlife & Fish Habitat Mgmt. | 47.4 | 45.4 | 59 |
| FARMER'S HOME ADMINISTRATION |  |  |  |
| Rural Community Fire Protection | 3.1 | 0 | 3.1 |
| Soil & Water Loans-Direct | 11.0 | 0 | 14 |
| Soil & Water Loans-Guaranteed | 3.0 | 0 | 0 |
| Watershed Protection & Flood Prevention | 7.9 | 0 | 8 |
| RC&D Loans | 1.2 | 0 | 1.2 |
| ENVIRONMENTAL PROTECTION AGENCY |  |  |  |
| Water Quality Management (205j) | 23.0 | 7.5 | 23 |
| Clean Lakes Program | 9.5 | 0 | 15 |
| State Programs Grant | 62.1 | 62.1 | 72 |
| Sec. 319 NPS Grants | 0 | 0 | 100 |
| Sec. 304K NPS Tech. Assistance (Transfer to SCS) | 0 | 0 | 25 |
| BUREAU OF LAND MANAGEMENT |  |  |  |
| Soil, Water & Air Management | 20.0 | 25.9 | 26 |
| Grazing Management | 33.9 | 33.9 | 35 |
| Wildlife Habitat Management | 18.5 | 14.9 | 21 |
| Wild Horse & Burro Program | 14.8 | 7.5 | 15 |
| U.S. GEOLOGICAL SERVICE |  |  |  |
| National Mapping, Geography and Surveys | 90.9 | 90.0 | 91 |
| Water Resources Investigations | 149.8 | 133.3 | 150 |
| FISH AND WILDLIFE SERVICE |  |  |  |
| Fishery Research & Development | 13.2 | 11.8 | 13 |
| Fish Hatcheries | 26.2 | 26.4 | 26 |
| Refuge Fund | 5.6 | 5.6 | 6 |
| Anadromous Fish Program | 2.0 | 0 | 2 |
| Cooperative Research Units | 5.7 | 5.8 | 8 |
| Fish & Wildlife Enhancement | 1.2 | 1.2 | 5 |

Mr. Shea. We represent 3,000 local soil and conservation districts around the country. Conservation districts coordinate and carry out national resource management programs at the local level. And provide leadership to many of the Federal, State, and local programs that are delivered at the county level.

Although districts are best known for the work that they do with erosion control, we are also active with forest land management, range management, urban erosion sediment control programs, wildlife preservation. They cut across the full spectrum of natural resource management programs.

Our 50 years of experience, Mr. Chairman, has very clearly demonstrated to us the importance of coordinating efforts. And that I think is what conservation districts do best, and that is to coordinate the delivery of the Federal, State, and local resources that are allocated.

That is the reason we are here today to speak in support of several of the Federal programs that coordinate with State and local programs.

Rather than comment on all of the programs within the agencies that are included in our funding resolution that is attached to my testimony, I just want to highlight several.

Today, we are speaking on behalf of several programs of the U.S. Forest Service, U.S. Fish and Wildlife Service, Bureau of Land Management, and the U.S. Geological Survey.

For the Forest Service we are testifying in support of six of their programs, most of which focus on proper forest management and good utilization programs.

We also have several line items dealing with range management and betterment programs.

For the Bureau of Land Management there are four programs that we have selected and pulled out those that our members feel are important. And, again, they are primarily management programs dealing with soil, water and air, grazing, and wildlife habitat.

For the U.S. Geological Survey Service, there are two programs. One is a mapping, a survey program. The other is a water investigation program.

And, last, Mr. Chairman, I would like to call your attention to the recommendations that we have made for the Fish and Wildlife Service. One program in particular that I would like to speak to is the Fish and Wildlife Enhancement Program. This is a pilot program that started about 1 year ago. It was funded at a very small level of $1.2 million.

The resources that are allocated through this program are used primarily by this Service to provide incentives to landowners to restore and enhance wetlands. We think this is a good program; it has worked very well on a pilot basis and we would like to see it expanded and, therefore, are recommending a $5 million allocation for that program this year.

Our member districts are working with the farm community right now trying to get highly erodible land under control as well as provide protection for wetland areas. And if we need anything right now in addition to the regulatory programs we have, we need some incentive programs. And this is one good incentive program.

With that, Mr. Chairman, I will conclude my testimony and respond to any questions that you might have.

Senator DECONCINI. Thank you. I do not have any questions, but your association is well-known and indeed accomplishes some very important things. And we are pleased that we are going to have the availability of your testimony this round.

Mr. SHEA. Thank you very much.

## STATEMENT OF DR. M. RUPERT CUTLER, PH.D., PRESIDENT, DEFENDERS OF WILDLIFE

### PREPARED STATEMENT

Senator DECONCINI. We will now hear from Dr. M. Rupert Cutler. Your full statement will appear in the record. If you would summarize it for us.

[The statement follows:]

## STATEMENT OF DR. M. RUPERT CUTLER

Mr. Chairman, thank you for this opportunity to tell you--in person--how much Defenders of Wildlife has appreciated this subcommittee's thoughtful consideration of our views over the years.

Defenders commends the subcommittee for restoring appropriations and providing additional funding for **nongame wildlife, wildlife refuges, and endangered species** specialized projects including those of benefit to the gray wolf of the Great Lakes and Northern Rocky Mountains states, the Mexican wolf subspecies of the Southwest, and the red wolf of the Tidewater Southeast.

As you know, Senator DeConcini, the wolf native to your region--**the Mexican wolf**--has been reduced to no more than 40 animals and is on the verge of extinction. For lack of cages, the captive breeding of this rare canid is being supressed. Please provide, within the Fish and Wildlife Service endangered species budget, at least $200,000 for Mexican wolf captive population expansion and $200,000 for Mexican wolf public information and interagency cooperation to give this rare subspecies a fighting chance to survive within the United States.

Another native of your part of the country also is in dire straits: **the desert tortoise.** Defenders hopes you will give the Bureau of Land Management funds to acquire critical tortoise habitat in California as well as $300,000 for desert tortoise recovery and management work.

In the few minutes I have left I would like to take issue with the current official position of the Fish and Wildlife Service in opposition to federal assistance to states for "nongame" species rsearch, education and management, under the terms of either the Endangered Species Act or the Fish and Wildlife Conservation Act of 1980.

Defenders recommends the appropriation of:

$13 million for "grants to states" (rather than zero dollars, as the administration recommends) under the Fish and Wildlife Service's Endangered Species budget;

$1 million for Fish and Wildlife Service research and managment to implement the "Nongame Migratory Bird Management Plan for the United States" (91 percent of our migratory bird species are nongame species); and

$5 million to fund the Fish and Wildlife Conservation Act of 1980.

The current Fish and Wildlife Service position is, "we cannot for the forseeable future endorse Federal reimbursement to the States for fulfilling their responsibilities in conserving nongame species." This despite their acknowledgement in the same testimony (Assistant Director Lambertson to the Senate Subcommittee on Environmental Protection, April 27, 1988) that the Fish and Wildlife Conservaton Act "envisioned Federal reimbursement to the States for their expenses in this area" and that the voluntary contributions by individuals to state nongame programs through state income tax check-offs are declining.

In a January 1988 GAO report entitled "Resource Protection: Using Gasoline Taxes to Fund the Nongame Act," a Fish and Wildlife Service biologist is quoted as saying that the 89 vertebrate species which have entered into endangered status since the Nongame Act's passage in 1980 would not have become endangered "if federal funds (had been) made available under this act to address the conservation needs of nongame species."

Thus the "Nongame Act" can be regarded as an "endangered species-prevention" act--if it is funded. The federal government promised to be a partner with the states in endangered species and nongame programs. The federal partner has broken his promise.

My personal experience with the successful cooperative programs between the U.S. Department of Agriculture and the state land grant universities tells me that state and private money and other support will follow if the federal government provides the seed money to get a cooperative state-federal program under way.

A good-faith nongame effort by the Fish and Wildlife Service, made possible with funds appropriated by this subcommittee, I'm sure will be matched soon by stepped-up efforts by the state wildlife agencies to provide for the welfare of the "wild majority" of our native species.

Thank you, Mr. Chairman. I'd be pleased to respond to questions.

Dr. CUTLER. I would be happy to, sir. I appreciate this opportunity to tell you in person how much we appreciate your help over the years, particularly on——

Senator DECONCINI. Thank you, Mr. Cutler. It has been a good relationship. Defenders of Wildlife. You are constructive folks who offer solutions instead of just opposition.

Dr. CUTLER. Thank you.

One program in particular is the work being done at Arizona State with the lithium chloride to discourage coyotes from eating sheep. It seems to be going well.

We commend your subcommittee for restoring appropriations and providing additional funding for nongame wildlife, wildlife refuges, and endangered species projects like those of benefit to the gray wolf of the Great Lakes and Northern Rocky States; Mexican wolf in the Southwest; and the red wolf in the Tidewater, Southeast.

As you know, Senator, the wolf native to your own area, the Mexican wolf, has been reduced to no more than 40 individual animals. It is on the verge of extinction.

For simply the lack of cages to conduct captive breeding, the captive breeding of this rare canine is being suppressed and we urge you to provide at least $200,000 within the wildlife budget for Mexican wolf captive population expansion; and $200,000 for Mexican wolf public information, interagency cooperation, to give this rare subspecies a fighting chance to survive within the United States.

Another native of your part of the country is in real trouble—the desert tortoise. Defenders hope you will give the Bureau of Land Management funds to acquire critical tortoise habitat in California, as well as $300,000 for desert tortoise recovery and management work.

In the few minutes I have left, I would like to take issue with the current official position of the Fish and Wildlife Service in opposition to Federal assistance to States for nongame species research, education, and management. Under the terms of either the Endangered Species Act or the Fish and Wildlife Conservation Act of 1980, Defenders recommends the appropriation of $13 million for grants to States under section 6 of the Endangered Species Act, rather than zero dollars as the administration recommends.

We recommend $1 million for Fish and Wildlife Service research and management to implement the nongame migratory bird management plan for the United States, because 91 percent of our migratory bird species are nongame species.

We urge the appropriation of $5 million to begin the funding of the Fish and Wildlife Conservation Act of 1980, the so-called nongame act.

The current Fish and Wildlife Service position is: "We cannot for the foreseeable future endorse Federal reimbursement to the States for fulfilling their responsibilities in conserving nongame species."

This despite their acknowledgment in the same testimony—this was by Assistant Director Lambertson to the Senate Subcommittee on Environmental Protection on April 27 of this year, that the Fish and Wildlife Conservation Act: "* * * envisioned Federal reimbursement to the States for their expenses in this area."

And that the voluntary contributions by individuals to State nongame programs through State income tax checkoffs are declining.

The January 1988 GAO report entitled "Resource Protection," using gasoline taxes to fund the nongame act, from resource to act.

A Fish and Wildlife Service biologist is quoted as saying that the 89 vertebra species which have entered into endangered status since the nongame act's passage in 1980 would not have become endangered: "* * * if Federal funds had been made available under this act to address the conservation needs of the nongame species. Thus, the nongame act can be seen as an endangered species prevention act if it is funded."

The Federal Government promised to be a partner with the States in endangered species and nongame programs.

The Federal partner has broken his promise.

My personal experience with the successful cooperative programs between the U.S. Department of Agriculture and the State land grant universities—I once was Assistant Secretary of Agriculture in charge of the relations between the experiment station directors and the Extension Service directors and USDA—tells me that State and private money and other support will follow if the Federal Government provides the seed money to get a cooperative State/Federal program underway.

A good faith nongame effort by the Fish and Wildlife Service made possible with funds appropriated by this subcommittee I am sure will be matched soon by the State wildlife agencies to provide for the welfare of the wild majority of our native species.

Senator DECONCINI. Thank you, Doctor. I have some questions, but time is so short, let me just ask you this.

The administration has stated that it does not have the resources to do a better job of conserving rare and endangered wildlife.

What is your response to that, Dr. Cutler?

Dr. CUTLER. I think we could begin by saving money, for example, in the development programs that adversely affect wildlife habitat on Federal lands, such as national forest road construction and timber sales where these programs do not pay for themselves.

There are a number of programs, water development projects in some instances, other programs that are, in fact, endangering wildlife habitat.

So we can reduce the subsidized Federal resource development programs and have funds for the endangered species in nongame programs.

Senator DECONCINI. Do you have a list of those programs that you think should be reduced?

Dr. CUTLER. We would be happy to provide it for the subcommittee.

Senator DECONCINI. Thank you. Very good.

I will submit a few other questions we have for you.

Dr. CUTLER. Thank you very much.

Senator DECONCINI. Due to time, we're going to move on. Thank you very much, Dr. Cutler.

We will now hear from Steven Moyer, Fish and Wildlife Services.

Is Mr. Moyer here?

[No response.]

## STATEMENT OF CHRISTINE STEVENS, SECRETARY, SOCIETY FOR ANIMAL PROTECTIVE LEGISLATION

### PREPARED STATEMENT

Senator DECONCINI. Christine Stevens, Society for Animal Protection.

Ms. STEVENS. I would like to put all of my testimony in the record, if I may.

Senator DECONCINI. It will be in the record in full and you can summarize it for us, Ms. Stevens.

Ms. STEVENS. Fine. And I would like to add a couple of new things.

[The statement follows:]

## STATEMENT OF CHRISTINE STEVENS

On behalf of the Society for Animal Protective Legislation, I urge this distinguished Subcommittee to recommend the appropriation of an additional $4.125 million to add 50 Special Agents to the staff of the Division of Law Enforcement, U.S. Fish and Wildlife Service and an additional $1 million for operation of the National Fish and Wildlife Forensic Laboratory.

In FY 1988 Congress provided funding to significantly improve the effectiveness and efficiency of the Service's Division of Law Enforcement. I greatly appreciate this response to the public's concerns about the effects of illegal activity on this nation's and the world's wildlife resources. However, more must be done if we are to prevent further deterioration of our wildlife and plant resources.

In spite of Congress' efforts last year, the Service still does not have enough Special Agents to adequately do the job that Congress has mandated. The Service has no more Special Agents today than it did in the late 1960's, when its law enforcement responsibilities were essentially limited to the Lacey Act and the Migratory Bird Treaty Act. Since that time Congress has passed the Endangered Species Act, the Marine Mammal Act, and the Airborne Hunting Act; ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and amended the Lacey Act to greatly increase its effectiveness, but at the same time significantly increasing the Service's enforcement responsibility.

As we have seen in recent articles published by the news media (copies attached), blatant and excessive violations of the migratory bird hunting regulations have become commonplace. Many hunters openly boast of hunting over baited areas, exceeding the bag limits and other serious offenses. In addition to the problems of wintering waterfowl, the Service is uncovering an alarming number of violations of the Lacey Act involving illegal hunting of resident big game species by unscrupulous hunters and guides (recent news articles attached); major problems with commercial importations of parrots, ivory, reptile skins, oriental medicines made from endangered species, and other valuable wildlife products protected by the CITES; and continuing illegal commercialization of eagles and other migratory birds to support the trade in Indian artifacts.

The Service simply does not have enough Special Agents to provide adequate protection for wintering waterfowl, and to fulfill its other enforcement obligations mandated by Congress. Since the 1970's the law enforcement workload of the Service has increased geometrically because of the many, much needed laws enacted by Congress to protect this nation's wildlife resources. However, Congress has not provided the funding or staff to allow the Service to adequately fulfill these responsibilities.

Another serious problem exists in the identification of wildlife products. While the Service has the capability to identify whole animals and products containing large pieces of wildlife, such as boots, purses, fur garments, etc., it is often impossible to identify small items such as watch bands and trim. Even more difficult is the identity of products such as cosmetics and oriental medicines that are chemical compounds composed in part of wildlife products. Unless the wildlife is declared as an ingredient on the packaging the Service is currently helpless to accurately identify the species involved.

To address the problem of wildlife identification, the Service is in the process of constructing the National Fish and Wildlife Forensics

Laboratory. This lab will be located in Ashland, Oregon, and will provide forensic support to both the Service and to State and foreign wildlife law enforcement agencies. Completion date for the lab is currently estimated in 1988.

Therefore, I urge that Congress authorize 50 new Special Agent positions and appropriate $ 4,125,000 to fully fund these positions and to appropriate $1,000,000 to support the new Fish and Wildlife Forensics Laboratory. With these new law enforcement agents and a fully staffed forensics laboratory, the Service would be able to address many of the serious law enforcement problems affecting our wildlife populations. Specifically, I recommend that these new Special Agents be assigned as follows:

-- 40 to field enforcement positions with concentration on those violations having the greatest impact on the fish and wildlife resources.

-- 4 to the headquarters Intelligence Unit. This small unit does research and analysis to provide assistance to complex covert operations and general enforcement. This unit currently has only 2 analysts and cannot begin to cope with the demands for intelligence information from the field.

-- 4 to the Special Operations Unit for full time undercover operations.

-- 2 to the Training Unit located in Georgia to not only train these new agents, but to expand the training of foreign fish and wildlife enforcement officers.

Ms. STEVENS. To begin with, 50 special agents should be added to the staff of the Division of Law Enforcement of the U.S. Fish and Wildlife Service. And that is an absolutely top priority. They have enormous amounts of law enforcement to cover. They simply cannot do it all.

We would like to ask for an additional $4.125 million for the purpose of adding them to the staff, and an additional $1 million for operation of the National Fish and Wildlife Forensics Laboratory, which is in progress now and expected to be completed quite soon.

And that will help to catch the very sophisticated kind of smugglers that, unfortunately, have to be dealt with in today's criminal wildlife market.

In fact, you may have seen in Parade in the Post on Sunday. You might have noticed this. It says: "Bird buyer beware. This exotic parrot could link you to a crime."

All too true. There is terrible cruelty involved as well as criminality. And, in fact, just recently, Judge Patt issued this order requiring the Fish and Wildlife Service to enforce the humane and helpful transport of wild mammals and birds, which is the new regulations under the Lacey Act Amendments of 1981, which took 6 years to get out at all and then Fish and Wildlife Service withdrew it saying that they had to have another go at it ending August 10.

The judge has said that the law must be enforced. That is extremely important. And it is not law enforcement that pulled away the regulations. So I hope this committee will provide the additional funds for law enforcement so they can do these much needed prosecutions and keep track of what is happening.

My testimony gives a breakdown of 40 for field enforcement positions, and then the other smaller numbers for other parts of it.

I would like to take another moment just to refer to another major problem, which, again, law enforcement is going to have to work on, in the April 29 Federal Register, an announcement about the illegal ivory from Barundi that was not registered with the Secretariat.

There is a huge amount of this. To be exact, 89,464 kilograms of raw ivory, amounting to 18,148 tusks.

So this is a very serious matter which we learned about at the CITES meeting in July. There was tremendous interest on the part of especially the African countries, because as they see it, this is economic warfare in which they are being deprived of the riches of their natural resources.

A book by Cynthia Moss, which has just been completed, is "Elephant Memories, Thirteen Years in the Life of An Elephant Family." And it is only in Ambozelli in the national park in Kenya that elephants still can live their natural lives. And the matriarchy which is their natural way of conducting their social life can exist.

On the other hand, very recently, the world's greatest authority on elephants, Dr. Ian Douglas Hamilton, flew over the area where he had studied elephant families and all their names were given.

Now he finds that all of the older elephants are gone, even though this was a protected—so-called protected—area. And only young elephants are milling around, not knowing how to conduct their elephantine affairs.

If we do not take action on the smuggling and poaching of ivory soon, the African elephant will follow the Asian elephant on to the endangered species list. And, indeed, it is probable that the Department of the Interior should list it even now.

I see the red light has gone on, Mr. Chairman. And I will conclude.

Senator DECONCINI. Thank you. The committee will give consideration to your suggestions. We appreciate your careful scrutiny and suggestions of specific areas to enhance the protection responsibilities of the Fish and Wildlife Service.

And we will now hear from Russell J. Gaspar, attorney for the American Horse Protection Association.

## STATEMENT OF RUSSELL J. GASPAR, ESQ., ATTORNEY, AMERICAN HORSE PROTECTION ASSOCIATION

Mr. GASPAR. Thank you. I'm the general counsel for the American Horse Protection Association. I am speaking today on behalf of not only AHPA but the Humane Society of the United States and the American Humane Association to offer our views concerning the proposed appropriation for the Bureau of Land Management's Wild Horse and Burros Program budget.

I have submitted written comments for the record and I would like to summarize them very briefly.

In brief, Senator DeConcini, our three organizations would like this committee to ensure that no money is appropriated during fiscal 1989 to round up wild horses and burros from the public lands.

And to extend the prohibition that was enacted last year on using appropriated funds to destroy healthy wild horses and burros that are in the hands of BLM or its holding facility contractors.

BLM's fiscal 1989 appropriation request asks for $7.5 million to round up 15,000 animals. It assumes that the Wild Horse and Burro Act will be amended to give them authority to sell animals at auction.

The truth is that sale authority probably is not a realistic legislative goal and BLM's roundup targets imply a $15 to $17 million appropriation.

AHPA is asking that this committee not appropriate any additional above the $7.5 million that BLM has requested. This is especially true in a year like fiscal 1989 when appropriated funds are in short supply and there are many other programs, including wildlife programs, that have been underfunded for years.

In the past 5 years, BLM has received over $77 million, and it has rounded up nearly 59,000 wild horses and burros. There were only 60,000 on the public lands when the roundup program started 5 years ago, so the removal rate has been tremendous over the last 5 years.

The remaining population by almost anyone's calculations, including BLM's, is at or below the number of animals that were there in 1972 or 1973, the first 2 years after the Wild Horse Act.

The problem of the fee-waiver adoption, which has been the principal disposal mechanism has received press attention, especially because the fee-waiver adoptions are being viewed now as a simple substitute mechanism to sell animals to slaughter.

Mr. Chairman, the time, we believe, has come to call a halt to wild horse and burro roundups after 5 years of extraordinarily high removal levels. We believe that should extend for at least the next 2 years, 1989 and 1990, so that BLM and all interested parties can reassess what has happened in light of the 59,000 animals taken off the public lands through 1988. We believe it is necessary to establish more reasonable populations for the animals and to do that free of the pressures of removing more animals and trying to cope with the breakdowns in the adoption system, the only way to do that is to stop targeting animals. It is not necessary at this point. The level of expenditures can stay since 1984. Thank you.

## PREPARED STATEMENT

Senator DECONCINI. Thank you, Mr. Gaspar. I have some questions which I am developing on this particular subject matter. I am no authority and would appreciate it if you would take the time and give us an analysis in response to creating sanctuaries for the placement of these burros and wild horses. I will offer specific questions to you after the hearing. If you would be so kind to look at them and give us your observations.

Mr. GASPAR. I would be very happy to.

[The statement follows:]

## STATEMENT OF RUSSELL J. GASPAR

The American Horse Protection Association, Inc., appreciates this opportunity to express its views concerning the proposed Fiscal Year 1989 appropriation of $7,513,000 for the Bureau of Land Management's program to protect and manage wild horses and burros. AHPA is a non-profit humane society dedicated to the welfare of horses and other equines. One of its principal interests has been the protection and preservation of the wild, free-roaming horses and burros which inhabit the federal public lands in ten western states.

The Association's testimony is endorsed by the Humane Society of the United States and the American Humane Association, both of which are national humane societies that work to protect wild horses and burros as an integral component of the public rangeland environment.

AHPA, HSUS and AHA make the following recommendations concerning the FY 1989 wild horse and burro program appropriation:

(1) No funds should be budgeted or appropriated to remove wild horses or burros from the public lands;

(2) The current prohibition against spending appropriated funds to destroy healthy wild horses and burros awaiting adoption in holding facilities should be extended; and

(3) The expenditure of funds to accomplish "fee-waiver" adoptions of wild horses or burros should be prohibited until such time as the abuses in the system are identified and eliminated. Thereafter, only non-profit charitable organizations which have a demonstrated commitment to the humane care of animals and the protection and preservation of wild horses should be permitted to adopt on a fee-waiver basis.

The Association believes that the proposed appropriation, which is more than $7.2 million below the FY 1988 appropriation level, is an illusion. BLM states that it intends to remove 15,000 wild horses and burros from the public lands in FY 1989, and to dispose of 12,500 of them through sales at public auction. Currently, BLM does not have authority to sell wild horses and burros. By making sale authority a premise underlying its budget request, the Bureau has (on paper) reduced animal holding costs significantly and has estimated receipts of $3.1 million from animal sales to offset the expense of roundups. These savings do not now exist, and it is virtually certain that the legislation necessary to make them possible will not be enacted.

An amendment to the Wild, Free-Roaming Horses and Burros Act (Pub. L. No. 92-195) to authorize sales at auction is vitually certain to fail; similar legislation died before reaching the Senate floor in 1983. The House of Representatives has never considered such legislation, which has the unanimous opposition of every humane and wild horse organization in the country.

In reality, BLM's FY 1989 roundup goal probably implies expenditures of $15-17 million when the offsetting sales revenue is eliminated and animal care costs are adjusted to reflect longer holding periods pending adoption. BLM is not being candid with Congress regarding its FY 1989 budget, and unless roundup funding is eliminated entirely the Bureau undoubtedly will request a large supplemental appropriation next year.

In addition, the Bureau's FY 1989 budget justification contains several factual errors which misrepresent the level of its wild horse removal activities. First, it reports that FY 1987 removals totalled 8,500; in fact, over 11,500 animals were removed. Second, it states that 8,100 animals will be removed based on the FY 1988 appropriation of $14,774,000. Yet BLM's budget justification last year estimated that 10,000 animals would be removed if that appropriation were made. AHPA understands that over 4,000 horses have been removed from Nevada public lands alone since the beginning of the fiscal year. In every year since FY 1985, BLM has exceeded its estimated roundup levels.

Therefore, the Bureau simply cannot justify the removals in its FY 1989 program. The Association respectfully asks the Subcommittee to examine critically whether wild horse and burro removals, and the appropriations needed to fund them, are necessary at all in FY 1989.

During the last five fiscal years Congress has appropriated $77.3 million for the wild horse and burro program, which has allowed the Bureau to remove nearly 59,000 animals from the public lands (Table 1). Although BLM persists in claiming that more than 40,000 wild horses and burros will remain after the FY 1988 roundups are completed, its data is based on the assumption that the herds will increase at a net annual rate of about 16 percent. Yet that assumption has been refuted by the Committee on Wild and Free-Roaming Horses and Burros of the National Academy of Sciences, which wrote in 1982:

> Three investigators . . . concluded that the annual increase rates for horse populations implied by published information from several studies on reproductive and survival rates must be considerably lower than the 16 to 18 percent commonly inferred from [BLM] censuses and might conceivably be below 10 percent.

NAS, Committee on Wild and Free-Roaming Horses and Burros, Final Report, p. 14 (emphasis added).

Using a 10 percent net annual increase rate for the purpose of comparison, AHPA has computed that the population remaining after the FY 1987 roundups is likely to be below 30,000, and that the post-1988 population will be well below 25,000 (Table 2). Given the NAS findings regarding growth rates, BLM's estimate of the number of animals remaining on the public lands this year is substantially overstated and probably is very close to BLM's target management level.

The Bureau's stated management goal for wild horses and burros is to reduce their populations to about 25,000: 21,000 horses and 4,000 burros. This will require a reduction of almost 60 percent from the 1984 population of 60,300. Although BLM claims that this population was far too large the public lands had supported an average population of about 60,000 for the ten-year period 1974-84. BLM's target population of 25,000 animals is significantly below the population that was on the public lands in 1971, when Congress found that wild horses and burros were "fast disappearing from the American scene," and passed legislation to protect them.

BLM commonly claims that removals of this magnitude are necessary to protect rangeland resources threatened by "over populations" of wild horses and burros. However, wild horses and burros make up only a very small fraction of total public rangeland grazing animals. By comparison, over 4.3 million livestock graze on BLM lands in the ten western states where wild horses and burros are found they consumed nearly 10.5 million AUMs in 1986. Over two million livestock graze on Forest Service lands in those states. In addition, nearly two million large game animals use BLM lands alone.

A comparison between wild horse and burro numbers and the elk population on BLM lands, for example, is revealing. In FY 1986, about 135,000 elk inhabited the public lands in the ten states that are home to wild horses and burros -- nearly triple the population of wild equids.

Even at their 1984 peak population, wild horses and burros accounted for only about four percent of the resources consumed by large grazing animals on lands administered by BLM. The 1988 population consumes much less. It is not surprising, therefore, that the National Academy of Sciences found, in its 1982 Final Report, that there were few examples of severe rangeland degradation attributable to grazing by wild equids. The need to spend tens of millions of scarce tax dollars to round up most of the Nation's wild horse and burro population has been doubtful at best.

Even accepting BLM's census data, the current wild horse and burro populations are approximately 25 percent below what they were in 1974, only three years after the Wild Horse Act was enacted. (BLM data indicates that the 1974 populations were 42,666 horses and 14,374 burros.) As FY 1988 began, therefore, the public lands supported about the same number of horses and burros as they did in 1972. Populations will be even lower by year-end due to further removals this year.

The roundups of the last four years have triggered a series of increasingly grave consequences. The original problem -- the expensive "warehousing" of thousands of horses for long periods of time while they awaited adoption -- has given way to increasingly obvious abuses of the Bureau's fee-waiver adoption policy. Fee waiver adoptions, which began as a mechanism to place a small number of otherwise "unadoptable" animals, became BLM's main adoption mechanism during 1987. Adoptions of 12,000 fee-waived animals were approved, and approximately 8,000 were delivered. In December 1987, a number of highly adoptable yearling animals were approved for fee-waivers by BLM Director Burford, despite the fact that the two adoption centers in the East had very few horses available for their programs.

At the same time, it has become clear that many of the "adoptors" have acquired the animals for the purpose of resale to slaughter or to rodeos, sometimes with the tacit consent and assistance of Bureau employees. A policy of intentional ignorance seems to characterize BLM's aproach to these adoptions. Although BLM officials have uniformly claimed to be unaware of the intent of fee-waiver adoptors, litigation over the program has demonstrated that BLM has known of the end to which at least some of the fee-waiver horses will be consigned. A Federal Court in Reno declared such adoptions illegal in a decision last summer.

As 1988 begins, therefore, the wild horse and burro program has become little more than federalized mustanging. The only difference between the current version and the pre-1971 practices that Congress forbade is that today's mustangers are employed by the Federal Government, and the U.S. taxpayer foots the bill.

Whatever the merits of the wild horse and burro removals prior to FY 1988, two points are now clear: (1) The current wild horse and burro population has been, by any standard, reduced to a level near or below the population present in the early 1970s, eliminating the need for any further removals in FY 1988 or 1989; and (2) The strains in the adoption program (all of which were easily predictable, and which AHPA has pointed out for the past three years) have created abuses that violate the Wild Horse Act. They must cease.

These factors, when viewed in light of the spending limits negotiated between Congress and the Administration for FY 1989 and BLM's current lack of sale authority, lead to the conclusion that no funds should be appropriated for wild horse and burro removals. If the Congress intends to keep BLM's spending at or near the $7.5 million budget level, it cannot appropriate funds for roundups. Basic program costs, including the care of animals in corrals as a result of FY 1988 roundups and the operation of an adoption program that is not dependent on fee-waivers, are likely to require nearly all of the funds requested. BLM's assumption that these costs will be reduced or offset by sale authority revenues is wholly unwarranted.

Significant additional savings would be available if Congress were to reconsider the FY 1988 appropriation and transfer funds from the wild horse and burro account to other meritorious Interior Department programs that have been under funded in recent years. By reducing the number of animals removed unnecessarily from the range in FY 1988, the portion of the FY 1989 appropriation attributable to holding costs pending adoption could be reduced even further.

The wild horse and burro program has been the subject of considerable controversy in recent years, and has attracted extensive media attehtion in the past few months. While the merits of the controversy deserve the Subcommittee's full attention this year in the form of an oversight hearing. It is entirely inappropriate to continue to fund needless removals of wild horses and burros from the public lands when thousands of animals await legitimate adoptions, and other valuable Interior Department programs to protect endangered species and wildlife habitat have been persistently under funded.

For these reasons, the Subcommittee should recommend that funding for wild horse and burro roundups be eliminated in FY 1989, and should adopt the spending prohibitions that the Association has urged.

## TABLE 1

### SUMMARY OF WILD HORSE AND BURRO PROBRAM APPROPRIATIONS AND ROUNDUPS

### FISCAL YEARS 1984 - 1988

| Fiscal Year | Appropriation | Animals Removed |
|---|---|---|
| 1984 | $ 5,766,000 | 6,084 |
| 1985 | 17,039,000 | 18,959 |
| 1986 | 16,934,000 | 12,318 |
| 1987 | 17,777,000 | 11,522 |
| 1988 | 14,774,000 | 10,000 (projected) |
| **TOTALS** | **$77,290,000** | **58,883** |

## TABLE 2

## COMPARATIVE WILD HORSE AND BURRO POPULATION ANALYSIS

| | | BLM Data | | AHPA Computation | |
|---|---|---|---|---|---|
| 1984 | Base 1/ | 60,356 | | 60,356 | |
| | Increase | 9,355 | (15.5%) 2/ | 6,036 | (10%) |
| | Removals 3/ | 6,084 | | 6,084 | |
| | EOY | 63,627 | | 60,308 | |
| 1985 | Base | 63,627 | | 60,308 | |
| | Increase | 9,862 | | 6,031 | |
| | Removals | 18,959 | | 18,959 | |
| | EOY | 54,530 | | 47,380 | |
| 1986 | Base | 54,530 | | 47,380 | |
| | Increase | 8,452 | | 4,738 | |
| | Removals | 12,318 | | 12,318 | |
| | EOY 4/ | 47,560 | | 36,700 | |
| 1987 | Base | 47,560 | | 36,700 | |
| | Increase | 7,372 | | 3,670 | |
| | Removals | 11,522 | | 11,522 | |
| | EOY | 43,410 | | 28,848 | |
| 1988 | Base | 43,410 | | 28,848 | |
| | Increase | 6,729 | | 2,885 | |
| | Removals (estimated) | 10,000 | | 10,000 | |
| | EOY | 40,139 | | 21,733 | |

**NOTES:**

1/ Bureau of Land Management, Administration of the Wild Free-Roaming Horse and Burro Act, 6th Report to Congress at 7, Table B (June 1986).

2/ A 15.5% annual increase rate for the BLM calculation was selected for two reasons: (a) BLM commonly states that wild horse and burro populations increase by about 16% annually; and (b) for the purposes of illustration, AHPA wanted to show a calculation that produced an EOY 1987 figure very close to the number reported by BLM in its budget justification.

3/ Removal figures are drawn from published BLM data, normally the workload accomplishments set forth in prior budget justifications for the wild horse and burro program, or similar sources.

4/ In 1986 BLM adjusted the reported burro population downward by approximately 3,100 to take into account animals removed from Defense Department and National Park Service lands in California. These animals previously had been reported as inhabiting BLM lands. See 6th Report to Congress at 7, Table B, Note a. A similar adjustment has been made in the 1986 calculations on this table.

## STATEMENT OF TOM WILSON, RANCHER, BUFFALO, SD

## ACCOMPANIED BY DAN JOHNSON, RANCHER, BUFFALO, SD

Senator DeConcini. We will now hear from Tom Wilson.

Mr. Wilson. I am a rancher from Buffalo, SD. Accompanying me is Dan Johnson who grew up on a ranch in Harding County.

We would like to present to you a proposal on Federally funded private sanctuaries that would take care of the excess of unadoptable wild horses and burros, while assisting distressed family farmers and ranchers. This sanctuary would benefit all involved—the horses and the burros, BLM, depressed farmers, and ranchers and the animal rights groups.

We thank you for the opportunity to appear here today.

I will summarize our written testimony.

[The statement follows:]

## STATEMENT OF TOM WILSON

My name is Tom Wilson,and I am a rancher from Buffalo S.D. and I am accompanied by Dan Johnson who grew up in Harding County on a ranch. We would like to present a proposal to this Committee for federally funded private sanctuaries that will take care of the excess and unadoptable wild horses and burros while assisting distressed family farmers and ranchers. This sanctuary would benefit all involved - the horses and burros, BLM, depressed farmers and ranchers, and the animal rights groups.

We thank you for the opportunity to appear here today.

### PURPOSE

This proposal is intended to provide an alternate way of caring for and maintaining excess wild horses and burros removed from the public rangelands. We propose to place groups of 50 to 500 animals with financially distressed farmers and ranchers, who will maintain them on their private grasslands. This will provide a less stressful environment for the horses than that found in the BLM's "feedlot corrals", as well as economic relief to participating farmers and ranchers.

### NEED

There is an immediate need for this program because the BLM intends to remove approximately 15,000 horses from the public range in fiscal year '89. There are also 14,000 to 20,000 horses in the hands of fee-waiver adopters which should be repossessed by the BLM in the very near future. These are horses intended for commercial exploitation, and the BLM has been enjoined from issuing title to them by District Judge Howard McKibben of Nevada on July 13, 1987. A motion to stay this injunction was denied by the 9th Circuit Court of Appeals on April 13, 1988.

### LOCATION

We are located in northwestern South Dakota in a ranching and farming community close to the small town of Buffalo. There are a number of smaller ranches and farms with lush grasslands in the area. We are also central to similar agricultural communities in North Dakota, Wyoming and Montana, making us especially well-placed geographically to administer this program.

## THE PROGRAM

After routine processing by BLM, horses removed from the public range and classified by the BLM as "unadoptable" will be sent directly to participating ranchers and farmers. Horses returned to the BLM by mass adopters will be sent directly to participating ranchers and farmers from their present locations. Our research and planning indicate that we can easily place up to 5,000 horses in groups of 50 to 500 within two months of our start-up date.

We will be responsible for prescreening farmers and ranchers for participation in the program. Only those applicants who can demonstrate economic necessity, a history of humane care and treatment of livestock, and who presently own their own property will be considered for participation. We will also be responsible for assigning horses to participants and maintaining records of those assignments, maintaining and updating health records and disbursing payments to participants on a monthly basis.

As just noted, only farmers and ranchers who presently own and intend to use their own property will be considered for participation in this program. We hope to avoid having participants whose primary motivation is the acquisition of newly purchased land. Corporate owned farms and ranches will not qualify.

## CARE OF THE HORSES

Horses will be maintained on good quality pasture in numbers commensurate with carrying capacity. Pastures must include natural or man-made shelters; a continuous supply of clean, fresh water; safe and reliable fencing and nearby holding corrals for use as required. Each participant must also keep enough baled hay on hand to supplement feed each horse in his custody 20 lbs. of hay per day for 90 days in case of harsh weather. Horses must also be provided salt and mineral supplements containing diatomaceous earth to aid in the control of parasites and flies.

Horses must be maintained in a non-reproductive state. All male animals should be gelded by the BLM before being delivered to participants, and fertile mares must be kept securely away from domestic stallions. Because this program is specifically intended to accommodate excess animals, it is of paramount importance to avoid conditions which will allow for breeding. It is, however, quite likely that some mares in foal will be delivered to the program. Foals born while in a participant's custody will be reassigned to a different participant after weaning or delivered to the nearest BLM holding facility to be included in the regular adopt-a-horse program. In this way we hope to destroy any incentive for an "unofficial" breeding program.

We will be responsible for providing nutritional consultants and farrier service to any participant as required. We will also maintain a quarantine center at program headquarters for use in case animals need to be isolated. Veterinarians will be consulted as the need arises.

## INSPECTIONS

Participants will be required to inspect the animals in their custody at least once every two days, and to keep a log of their inspection activity. We will be responsible for supervisory inspections at regular intervals, and we will keep a written or video-taped record of our inspections. All inspection records will be available at any time to the BLM and members of the program's advisory board.

## ADVISORY BOARD

We propose to form and work with a five- to seven-member advisory board made up of BLM employees, animal rights advocates and farmer/rancher participants. Members of the advisory board will be consulted at regular intervals for their advice on the care of the horses and other pertinent issues. Board members will be welcome to inspect any facilities at any time.

TITLE

Title to the horses is to remain with the U. S. Government.

COST

Our suggested fee is $1.20 per head per day, which includes all charges except vet care. Veterinary charges will be billed separately to the BLM and will be preauthorized except in emergencies.

CONCLUSION

This program has four main advantages:

First, it costs less;

Second, it provides a less stressful environment for the horses;

Third, it provides economic relief to distressed farmers and ranchers; and

Fourth, it satisfies the concerns of the humane community, which is deeply offended at the prospect of the wholesale destruction of wild horses.

Although we feel this is a very sound program, we are open to suggestions and willing to negotiate details.

Dan Johnson
DAN JOHNSON
(605) 375-3589

TOM WILSON
(605) 375-3650

Mr. WILSON. This provides an alternative way for caring for the excess horses and burros. We would propose to place 50 to 500 animals on financially distressed farmers and ranchers lands, on their private grasslands, I might add. This would put less stressful environment on the horses than is found in the BLM feedlot corrals, as well as provide economic relief to the participating farmers and ranchers, even though this is a nonreproductive program which will phase itself out.

There is an immediate need for this program due to the amount of horses that are in the fee-waiver system and the amount of horses in the feedlot corrals. The fee-waiver system has been enjoined, BLM has been enjoined from issuing title to them by District Judge Howard McKibben of Nevada and a motion to stay this injunction was denied by the ninth circuit court of appeals on April 13, 1988.

We are located in Northwestern South Dakota in a ranching and farming community. We are also central to similar agricultural communities in North Dakota, Wyoming, and Montana, and have interest expressed to us from all of those areas. The program would consist of the horses being routinely processed by the BLM, and after classification, if they fell into the unadoptable range, they would be shipped to farmers and ranchers who are accepted into the sanctuary in numbers that do not exceed the carrying capacity of the land.

We would be responsible for prescreening the farmers and ranchers for participation in this program. Only those applicants who can demonstrate economic necessity, a history of humane care and treatment of livestock, and who presently own their own property would be considered for participation. In this way, we would be responsible for assigning them, maintaining them, and maintaining records of those assignments and updating health records and disbursement of payments.

As the number of horses diminishes, the ranchers and farmers will be able to restock without going deeper in debt.

It is noted that only farmers and ranchers who presently own their land would be considered for participation. In this way, we would hope to destroy the motivation for acquiring new land. Corporate farms and ranches would not be accepted. Horses would be maintained on good pasture. The pastures must include natural or manmade shelters; a continuous supply of clean, fresh water; safe and reliable fencing and nearby holding corrals to use as required. Each participant would have enough hay to carry 20 pounds of hay per head per day for 90 days, in case of harsh weather, for each horse.

The horses would be maintained in a nonreproductive state. All male horses would be gelded by the BLM before being delivered to the participants and fertile mares must be kept securely away from domestic stallions.

Because this program is intended to accommodate excess animals, it is of paramount importance to avoid these conditions which would allow for breeding.

The inspections. The participants would be required to inspect their horses every 2 days and to keep a log on the inspection activity. We would be responsible for supervisory inspections, and we will keep a written or videotaped record of these inspections. All inspection records will be available at any time to the BLM and members of the program's advisory board.

Title would stay in the hands of the U.S. Government.

This program has four distinct advantages.

First, it costs less than the corral system.

Second, it provides a less stressful environment for the houses.

Third, it provides economic relief to distressed farmers and ranchers, while it continues to phase itself out.

I see I am out of time. I will not continue, because the rest of it is in the written testimony.

Senator DECONCINI. Thank you. We appreciate this constructive suggestion.

As I mentioned to Mr. Gaspar, I have a constituent in Arizona who is a veterinarian and also a horse breeder and has a great similarity to what you are talking about as sanctuary. We look forward to maybe being able to put something together. Thank you.

Mr. WILSON. I appreciate your taking the time to listen to us. Thank you.

## STATEMENT OF ANCELLA RADFORD BICKLEY, INDEPENDENT SCHOLAR FROM WEST VIRGINIA, ON BEHALF OF THE FEDERATION OF STATE HUMANITIES COUNCILS

Senator DECONCINI. Next we will hear from Ancella Radford Bickley.

Ms. BICKLEY. Good day. I am Ancella Radford Bickley, retired college administrator and independent scholar from West Virginia. I am here today to speak on behalf of the State humanities councils of the National Endowment for the Humanities.

We appreciate the support that we have received in the past through the congressional committees, and we request that this support be continued for the ensuing years. As you may know, the State programs were begun in 1970, and they bring scholars and the people of our States together. They are helping to establish cultural literacy in our State. They are helping to engender ways of thinking, modes of inquiry and thoughtful reflection which, indeed, enriches our lives.

Dollar for dollar, the money appropriated for these programs is extremely well spent. They are small administrative budgets. Most of the funds are spent on programs. As you may know, our State of West Virginia is a small State, largely, a rural State, and until recently, largely inaccessible, one city, one county to the other, because of the mountainous terrain.

The State humanities programs have been invaluable in bringing scholarship to the adult communities in many of our rural communities. In particular, there is a program in West Virginia headquartered now in a little town called Lewisburg that is called Eco Theater. It is indigenous theater, a very unique kind of theater, in that it is based on the oral history of the community in which the companies are located. The oral history is taken. It is turned into a dramatic production which is performed by local people in their own accents. It has had remarkable success in West Virginia. It has involved senior citizens; it has involved young people from the Governor's summer youth project, and those who have had an opportunity to see or to perform with Eco Theater feel that their lives have been enriched, that they have been touched in ways that they are not always able to describe, but that they know has happened to them.

Not only has it helped to engender pride in the local communities, but it has also brought the scholars into the communities in ways that they have not been there before.

We also, in West Virginia, have recently had summer seminars for teachers in helping to spread the concepts of the humanities education to the public schools. We have shared, through the education of the teachers, the skills and techniques of the humanities. We had a very exciting conference on the Bill of Rights in West Virginia, through which we have brought school children and teachers from every county in the State into the capital city, where they were able to interact with the chair of the National Endowment and four Congressmen from West Virginia in an exciting television conference, which was broadcast throughout the State of West Virginia.

Very close to my own heart has been a just concluded conference on the black history of West Virginia. It was the first time that this has ever happened.

Those of us who have lived in West Virginia for over 200 years have not found ourselves reflected in the history books or in the common life of the State, yet through this conference, we were able to bring together noted scholars, lay people throughout the State of West Virginia to begin what we hope will be a continuing involvement and inclusion of our people in the State's history. This could not have happened without the help and support of the State programs of the National Endowment for the Humanities.

Now the very success of these programs has created the situation that we now come to you to ask you to help us to alleviate. Our very success has created a demand for continuing programs and a demand for services that has outstripped the available resources. We, therefore, request that for fiscal year 1989 that $25 million be allocated to the State programs and that over the next 3 years that we work toward parity with the National Endowment for the Arts. Now we do not ask for parity for the sake of competition nor simply for the sake of equality. We ask for clarity because we need it, because the money that you would give us would be extremely well spent.

Over the past 7 years, a great gap has developed between the NEA and the NEH.

The light has gone on. I appreciate the opportunity to talk with you.

Senator DECONCINI. Thank you very much, Ms. Bickley. Your testimony is very helpful, particularly about some of the new projects and new areas. We thank you very much.

[The statement follows:]

# STATEMENT OF ANCELLA RADFORD BICKLEY

I am Ancella Radford Bickley, retired college administrator and independent scholar from West Virginia. I am, indeed, pleased to have this opportunity to talk with you about an area of public programming that is enriching my life and the lives of others in my state, as well as in all other states and territories.

Although academicians have long recognized the value of the humanities, justifying their study in an era addicted to visualizing success through numbers has always been difficult. How does one quantify sensitivity? How does one count cultural understanding or conceptual skills? What monetary value does one place on imagination?

Having spent much of my working life within the confines of the academy, I am intimately familiar with the traditional definitions of the humanities -- those inner quests of the mind and spirit exercised in quiet contemplation, taught through received texts to generations of students -- becoming for some the linch pins of a reflective life, remaining for others, too many, I suspect, something to get through on their way to a career of specialization and money making. Accustomed as I was to the private exercise of the humanities directed, contemplative life, however, my training did not lead me to anticipate a public role for the humanities.

And then in 1970, the National Endowment for the Humanities created the State Humanities Councils, beginning a partnership between humanities scholars and the public which brought the techniques and skills of the traditional modes of humanistic inquiry to new subject matter and new people. As this partnership has progressed, both a public curriculum and a public pedagogy have been emerging. Planned with the adult public in mind, exciting activities have taken place, new applications of the humanities have been discovered, and new ways of "seeing" have become possible. For example, rivers and bridges, seemingly simple geographic and engineering artifacts valuable to the economy, take on new significance when viewed as connecting links between peoples and cultures and times. Through the lenses of the humanities, the movement of people becomes more than an economic convenience -- its human impact is revealed. As a case in point, through public humanities scholarship in West Virginia, we have been able to move from what was once an historical line or two about the immigration of the Swiss to our state to the engaging story of the village of Helvetia in Randolph County as told through the memories of its elders and placed in larger perspective through the analysis of humanists. And our excellent Coal Life Project took us into the nooks and crannies of mining communities and gave us first hand understandings of the daily lives of those who brought the "black diamonds" to the surface.

Our country is replete with the success stories of local humanities programs made possible by the state humanities councils. The great plains states of the Dakotas, Kansas, and Nebraska have revitalized the Chautauqua lecture system developed during the early part of our century. Bringing to life characters from literature and history through impersonations and discussions by scholars, the new Chautauqua has created stimulating inquiry in many small towns in the plains area. In the Northeast, Vermont has pioneered a reading /discussion program in libraries that has been so well received that small libraries have had to establish waiting lists of people wishing to participate. In the South, through a unique program, Mississippi has introduced residential scholars in small communities to aid in developing local humanities programming and to bring the work of the scholar into public focus. An Arkansas project, "Persistence of the Spirit," which examines the black experience in America with special emphasis on Arkansas, has sent traveling exhibits to seventy sites in the state, and to Memphis, San Francisco, and Washington, D.C.

Perhaps one of the most provocative of the recent state projects was the three day conference on "Understanding Evil" sponsored by the Texas Commission on the Humanities. Bringing together a capacity participation of 250 attendees and humanists such as minister/scholar Samuel Proctor, psychoanalyst Rollo May, and author/ scholar Richard Lyman, the conference examined the nature of evil as discussed by some of the world's great thinkers, both historical and contemporary.

Although one of the major activities of state humanities councils is that of re-granting funds for local proposals, the councils, themselves, have exerted leadership by initiating projects in certain areas. Pioneering in humanities education for the public schools through a 1977 council devised program for teachers, Connecticut led the way for other states; among them is West Virginia which recently held summer seminars for teachers on "The Integration of Women into the Social Studies Curriculum," and "The Classical Greek World." Another major linkage with the public schools in West Virginia led to a day-long Bill of Rights Conference which culminated with a televised session during which Lynn Cheney and the state's four congressmen interacted with students and teachers from each high school in West Virginia. Broadcast into schools and homes throughout the state, the session also permitted the involvement of local students through a telephone hook-up.

The efforts towards council initiated humanities education in the public schools in South Carolina have been acknowledged through an award to the South Carolina Committee for the Humanities. Made by the Rockefeller Foundation, the award will support the first phase of a project aimed at improving the quality of public education in South Carolina's rural schools.

One of the most ambitious of the projects of the West Virginia Humanities Foundation has been the establishment of a statewide humanities network coordinated through a Humanities Center. Bringing together representatives from museums, libraries, and media, along with independent scholars, and faculty members from colleges/universities and public schools, the Center offers humanities practitioners an opportunity for shared involvement and planning for adult humanities education in the state.

Although still in the early stages of development, the Center has begun several major program thrusts. One of them is the "Seminar for Professionals" through which representatives from selected professions are brought together with humanities scholars to discuss works of literature. Carefully selected, these literary works evoke what Sanford Lottor, a Brandeis University professor who is one of the seminar originators, calls "the second text" -- the one drawn from the life experiences of the seminar attendees. Lottor says that as a part of this dyad "...the literary texts become a 'window' through which people go to look at their own experiences."

No word about public humanities programming in West Virginia would be complete without a special comment about its outreach efforts to communities that have traditionally had limited involvement with activities of the larger society. Toward this end, three projects are especially deserving of remark: Eco Theater, the West Virginia Conference on Black History, and its companion project, the publication of the plays of black female playwright, Ann Kathryn Flagg.

Headquartered first in Hinton in Summers County and more recently in Lewisburg in Greenbrier County, Eco Theater has received continuing support and encouragement from the Humanities Foundation of West Virginia. Termed "indigenous theater" by its originator, playwright Maryat Lee, Eco Theater traces its lineage to the medieval miracle and mystery plays which were theater for and of the people. Using material, often oral history, from the local community and featuring local performers, Eco Theater, according to Lee, seeks "...to identify and cultivate what is inherent in the local culture." Its premise is that all human beings are worthy regardless of age, race, or social condition, and that all have a story that should be told, first to themselves and then to others. Through Eco Theater, oral histories are shaped into dramatic scenes and then performed by local actors and actresses, using their own language rather than one assumed for theatrical effect. In addition to building connections from one human being to another, Eco Theater encourages self respect, engenders self confidence, heals the spirit, and empowers in ways witnessed but not completely documentable. It has involved as performers, senior citizens, young people from the Governor's Summer Youth Project, and others from the community. It has been forwarded by humanities scholars who have provided critiques and linkages with a cultural and intellectual past and present. Commentaries suggest that it has had an important impact upon many who have worked with it. One young Summers County woman who began with the project in the 1970's credits it with providing her with the ability to see beyond herself and her environment. Another woman, a resident of McDowell County which has been greatly affected by the loss of revenue from the coal mines, has begun her own Eco Theater Company. She feels that her life has been substantially changed by the experience. Not only has she found great personal insights but her community has benefitted from its look at itself from the safe distance and "masks" of the stage.

The West Virginia Conference on Black History brought together scholars and lay persons for a review and analysis of certain of the historical personalities, families, and socio/cultural situations of black life in the state. Aims of the conference were (1) To begin what is hoped will be an on-going examination of the long association of black people with the state of West Virginia; (2) To foster a sharing of information among groups and individuals involved in collecting/writing black history in West Virginia; (3) To encourage a dialog between scholars and lay persons about West Virginia's black history; (4) To raise the consciousness about the need to collect and preserve West Virginia's black history; (5) To offer suggestions for caring for items of historical value retained in personal collections. Presentations were made by a musician/folklorist, by journalists, genealogists, librarians, academic historians, lay historians, and others. The conference was enthusiastically received and recommended for continuation.

As a companion project to the Black History Conference, the Humanities Foundation of West Virginia also encouraged the publication of a book of plays written by a black woman from Charleston, West Virginia. In addition to its aesthetic value, the document illustrates the multi-party cooperation that may be necessary to make apparent the history and culture of the black West Virginian, for involved in its development were (1) those who preserved the material; (2) the scholar who interpreted it; and (3) the agencies which arranged for and funded the publication.

In its 1980 publication, The Humanities in American Life, the U. S. Commission on the Humanities wrote, "The essence of the humanities is a spirit or an attitude toward humanity. They show how the individual is autonomous and at the same time bound, in the ligatures of language and history, to human kind across time and throughout the world." (p. 3)

This inter-connectedness, one person to another, across time and space, is evident in the public humanities programs underway in our country. They help us to know -- provide guided opportunities for us to examine ourselves and our values, to gain vicarious experience of what it is/was like to live in another place, in another culture, in another skin. Through the efforts of the state programs, the skills of inquiry and reflection, the careful attention to substance-- written and unwritten -- the general insights and methods of the humanities have been brought to bear on personal and public issues, engendered a consideration of our individual and collective ideas and actions. Certainly, my state of West Virginia and its citizens have benefitted greatly from having a state humanities program as a part of its educational landscape.

The exemplary work of the state humanities programs has gone forward under the constant fear of reduced funding. In spite of appeals to the contrary, the amount of outright funds appropriated for state councils for FY 1988, $21.3 million, is $500,000 less than that appropriated for FY 1984; it is $2.6 million less than the 1981 appropriation. In supporting state humanities programs, it is to be noted that the federal government has not been alone; successful efforts have been made to supplement federal monies; in many instances, federal funds have been doubled and tripled because of financial gifts from state sources, and from corporations and individuals.

We stand at a point in our national history when our people are in great need of encouragement in the face of bewildering uncertainties; an increased ability to interpret and identify with other seekers across, races, cultures, station in life, and national boundaries holds the promise of easing relationships and smoothing our passage. The state humanities councils have demonstrated the contribution that they can make toward this needed understanding and renewal of the spirit. To continue the efforts so well begun, a dependable and sufficient source of funding is required. We ask, therefore, that the state program be funded at $25 million in fiscal year 1989 and that parity with the National Endowment for the Arts be achieved by 1991. This is not to disparage the arts, but to affirm the humanities and their worth to American life, to recognize the sure and true equivalence of the act of creating and the act of interpreting human history, culture, and values.

### STATEMENT OF WARD CHAMBERLIN, JR., PRESIDENT OF WETA, ON BEHALF OF THE NATIONAL ASSOCIATION OF PUBLIC TELEVISION STATIONS

Senator DECONCINI. We are now going to have Ward Chamberlin, Jr., president of the National Association of Public Television Stations.

Mr. Chamberlin, we welcome you here. Unfortunately, we are in the middle of a rollcall vote. Due to the vote and lack of a chairman for the next 10 witnesses, we're going to permit the witnesses to come forward and give a summary of their statement to the staff, if the witnesses so desire. Otherwise, they can submit their statements. I am going to have to leave in the middle of your statement, Mr. Chamberlin. We appreciate the fine work that WETA is involved in.

Mr. CHAMBERLIN. I am pleased to be here representing the National Association of Public Television Stations. We were pleased, Senator, about 1 month ago, to have Mrs. DeConcini at our station for the National Teleconference on Employers' Responsibility for Child Care, in which she is such a leader, and we delighted to have her there.

In public television, we are great supporters of the NEA and the NEH, because they have made possible programs like "Live from the Met," "Live from Lincoln Center," "Wonderworks," the great cultural public television programs which really have made our name across this country and have brought to millions of Americans the great stars of performance who mean so much when you see them, and then when you see them on television, it is the second best thing.

Those programs would not have been possible for public television without substantial support from the NEA and, in some cases, the NEH. It does not mean that they put up the full support; they don't. But they make important substantial grants that also encourage corporations and foundations to add their support to the enormous cost of significant television programs.

So we are here to support the maximum Federal appropriations for the Endowments, and we hope that you will accept our support of those Endowments.

I would also just like to mention quickly the challenge grants, which the Endowments make, in order to encourage us to raise additional funds. For example, at WETA, we have a challenge grant from the National Endowment for the Arts of $600,000. We have to match that by raising an additional $1,800,000. That total fund of $2.4 million will enable us to form a permanent arch unit at WETA, which will increase both local funding of television programs on the arts and will help us bring to the Nation, as a whole, important programs in these areas. The grant itself enables us to go to the public and say that we received a substantial grant from the NEA, in this case, and we need your additional help to match that on a 3-for-1 basis.

PREPARED STATEMENT

I want to be as enthusiastic as I can on behalf of public television in your continuing support of the National Endowment for the Arts and the National Endowment for the Humanities. Thank you very much.

Mr. ESTES. Thank you, Mr. Chamberlin.

[The statement follows:]

# STATEMENT OF WARD CHAMBERLIN, JR.

The nation's public television stations play a vital role in fulfilling the missions of the National Endowments for the Arts and the Humanities. Without the funds that these two great institutions provide, many of public television's landmark cultural and art series would not have been possible. Public television extends the reach of our nation's artists and scholars in an effective and cost efficient manner. No one but public television serves as so large an electronic window on our nation's great cultural riches.

We urge the maximum possible levels of federal support for both Endowments in FY1989; we recommend specifically that both Endowments' funds for media projects continue to be funded at higher levels. In addition, we strongly support the continuation of both Endowments' Challenge Grant programs.

## Public television and the Endowments: A shared mission

The National Endowments for the Arts and Humanities and our nation's public television stations have many shared missions -- to preserve our nation's heritage, to educate all our citizens, to enrich our cultural institutions and to promote the work of our nation's gifted artists and scholars. The Endowments have built a foundation on which leading and emerging cultural institutions can seek the private and corporate support to share and celebrate this country's tremendous creative genius.

Public television has for more than twenty years provided access to this grand celebration -- to culture, to history, to popular and scholarly discourse, and to the performing arts -- for nearly the entire American population. Some 97% of the homes in America can receive a free public television signal, and nearly 50% of them tune in public television for several hours per week. In terms of race, education, and income level, our audience mirrors the nation as a whole.

Public television helps eradicate the barriers of privilege and makes the treasures of cultural heritage and vitality of our arts accessible to the American people, regardless of their means, their education, their social position, or their distance from theaters, concert halls, or galleries. More people watched American Playhouse's presentation of Arthur Miller's "All My Sons" last January than attended all performances of all plays appearing in all of Broadway's commercial theaters for an entire year. Live from the Met's first broadcast of Puccini's "La Boheme" was seen by more people than had attended live performances of that opera since it was first performed.

While there can be no substitute for attendance at live arts performance, public television programming can serve as an important introduction and enticement to the performing arts. Studies have shown that television does not replace live arts attendance; it enhances it. Faced with high costs of mounting tours, many major arts companies, including the Metropolitan Opera, have acknowledged the growing importance of their role with public television. The series Live from Lincoln Center and Live from the Met have pioneered methods of televising plays, operas, concerts, and dance, and have introduced a generation of arts lovers to the best of these institutions' peformances.

Support from the National Endowment for the Arts continues to make possible American Playhouse, now in its seventh season as a showcase for the most exciting American talent today in theater, in films, and on television. The series serves as a most important outlet for American artists and independent film and video producers by presenting an eclectic combination of American history, biography, literature, drama, and comedy. American Playhouse's 1988 season celebrates the centennial of Nobel Prize-winning Eugene O'Neill's birth with several programs: a three-part presentation of "Strange Interlude"; an O'Neill biographical drama, "Journal Toward Genius"; and a television adaptation of Jack Lemmon's acclaimed Broadway performance of

"Long Day's Journey into Night." The series remains as a major investment in bringing high-quality drama into the homes of the American public.

One of the most exciting new projects coming to public television this year with the help of the National Endowment for the Humanities is The American Experience, a sixteen hour series that examines the meaning of our American heritage. Premiering this summer on public television with the help of the National Endowment for the Arts will be a new series from the consortium of public television stations that present American Playhouse. The new programs, titled P. O. V. (Point of View), will showcase the works of American independent documentary producers by allowing the filmmakers to introduce and discuss the films on the air as part of the program.

WonderWorks, the award-winning prime time family drama series, is now in its fifth season on public television with the support of the Arts Endowment. Produced by a consortium of five public television stations -- WQED/Pittsburgh, KCET/Los Angeles, KTCA/Minneapolis, South Carolina ETV, and WETA/Washington -- the WonderWorks series consistently attracts top flight talent to create all too rare masterpieces of family entertainment. The marvelous production of "Anne of Green Gables" which won the 1987 Emmy Award for children's programming has been followed this year by the four part sequel "Anne at Avonlea", chronicling Anne Shirley's young adulthood.

Funds from the Humanities Endowment have made possible the new series American Masters, an anthology of video portraits of those Americans whose gifts and talents have made indelible marks on our history and culture. Artists highlighted in the last two seasons of this series have included Charlie Chaplin, Billy Holiday, Isaac Bashevis Singer, William Wyler, and others.

Public television's performance programs perhaps best demonstrate our industry's special mission of providing services to audiences whose needs are not otherwise met by commercial broadcasting. Great Performances, now in its fifteenth season of presentations from WNET/New York, this season features the world premiere telecast of Peter Sellars' opera "Nixon in China", a profile of conductor Arturo Toscanini, Benjamin Britten's opera based on Henry James' "Turn of the Screw," and a celebration of jazz great Dizzy Gillespie on his 70th birthday.

Dance in America, Live from Lincoln Center, and Live from the Met continue to delight and educate American audiences with the best of performance art. Alive from Off Center, entering its fourth season this summer, continues to spellbind audiences with its own original brand of new wave video and performance art. Without the support from the Arts Endowment, these important showcases of great and emerging American talent would not be possible.

## Institutional support from Challenge Grants

The public television stations that produce the great performance and cultural series for the entire public television system, as well as other stations, have received additional support from the two Endowments in the form of Challenge Grants. These one federal dollar to three private dollars matching grants have enabled many of our stations to raise the funds necessary to take on the heavy burdens of production for a national system while still providing vital local cultural services.

Last year, two public television stations, WETA/Washington and WTTW/Chicago, received Challenge Grants of $600,000 and $500,000 respectively from the National Endowment for the Arts. In recent years, the Humanities Endowment has also awarded Challenge Grants to public television stations, notably to KCET/Los Angeles and WQED/Pittsburgh. WQED hopes to use some of these matching funds to promote intergenerational reading involvement, capitalizing on its great success spearheading the Project Literacy U.S. (PLUS) adult illiteracy project.

Conclusion

Support from both the National Endowments for the Arts and the Humanities remains critical to the best use of public television for the American people. The fine programs that have been made possible through Endowment funding have sought to fulfill the missions of both public broadcasting and the Endowments to enrich culturally and artistically the lives of the American people. Endowment dollars spent on public television's program production pipeline -- in research and development funds, production assistance, or directly to our stations -- are indeed dollars well spent.

We are happy to report to the Congress that the funds made available through the Endowments and through increased appropriations to the Corporation for Public Broadcasting (CPB) have made possible new and unprecedented growth in our system's ability to feed new programs into the pipeline, and we hope that this Subcommittee is justifiably proud of the integral part it has played in that effort.

Nearly every American has access to a free public television signal and to the cultural riches sent through it. We encourage both Endowments to continue to increase their funding of broadcast media projects, and we support funding the Endowments to the greatest extent possible.

## STATEMENT OF STANLEY KATZ, PRESIDENT, AMERICAN COUNCIL OF LEARNED SOCIETIES, ON BEHALF OF THE NATIONAL HUMANITIES ALLIANCE

Mr. ESTES. Our next witness will be Mr. Stanley Katz.

Mr. KATZ. Thank you. I have submitted a statement for the record. I want to make just a couple of points very quickly. I will not even go over the statement itself.

I am representing the National Humanities Alliance, which is a group of 15 or more humanities organizations, associations, museums, libraries, and institutions of higher education. I am the president of the American Council of Learned Societies which, as you know, is the congressionally chartered national humanities organization in the private sector.

I want to make these points in addition to my testimony.

First is that I urge the committee to consider that the humanities are, in fact, a system, a system of interdependent and interacting parts, and I am thinking about the budget for the National Endowment for the Humanities. I think it is very important that you realize that we think of it that way, that each of these is in some way dependent on the others, for instance, that support for fellowships, support for research, all link up to support for public education programs, for education programs and other programs of that sort. That is the first point.

The second is that we recognize that in addition to ordinary and continuing support for NEH, which is critical, that special needs do arise from time to time, and in my testimony, I make the particular point that such a need has arisen now, and that is in the area of preservation of books and manuscripts, but particularly books. I refer to the brittle books problem, in particular. And we've gone into considerable detail there.

We support entirely the proposed plan for expansion of NEH activities in that area.

And finally, I want to stress the importance of NEH funding, generally. I'm not sure that it has been recognized what a critical player NEH has become to the humanities community. When William Bowen, president of the Mellon Foundation testified before Congressman Yates' committee a few weeks ago, he had done some research on this problem and was able to share that the combined investments of the 30 largest philanthropic foundations came to less than one-half the annual NEH budget. Without the NEH, we simply could not do the work we do.

### PREPARED STATEMENT

I want to make the point that the humanities community is firmly behind the work that NEH does. Thank you very much.

Mr. ESTES. Thank you, Mr. Katz.

[The statement follows:]

## STATEMENT OF STANLEY KATZ

I am Stanley Katz, a legal historian on the faculty of Princeton University, currently also serving as President of the American Council of Learned Societies. It is a pleasure to testify before you today and to represent the National Humanities Alliance and its membership of more than fifty scholarly and professional humanities associations, museums, libraries, institutions of higher education, and state humanities councils (a list of NHA's member organizations is attached). I am pleased as well to be able to express my support for the programs of the National Endowment for the Humanities (NEH).

My own association with the Endowment goes back many years. I have served on numerous peer review panels for a variety of Endowment programs. I chaired the NEH-funded American Issues Forum: Chicago Committee (1974-76) and served on the New Jersey Committee for the Humanities (1979-85), and have been fortunate enough to receive support from the Endowment for my own scholarly work. I believe I know the Endowment and its history very well and that I am in a position to speak with some authority on the role that it has played in the past and can play in the future in the intellectual and cultural life of the United States. Moreover, in my current position as President of the American Council of Learned Societies, I have an especially broad acquaintance not only with the programs of the Endowment, but also with the more general domain of research and programming in the humanities. This acquaintance has only reinforced my feeling that the Endowment performs a unique role that is not and could not be filled by any private foundation or any government agency.

The National Endowment for the Humanities is, without question, both the largest and most important funder of research and programming in the humanities in this country. William G. Bowen, an economist currently serving as President of the Andrew W. Mellon Foundation and previously as President of Princeton University, has recently undertaken studies of the support of humanities provided by NEH in the context of support by the largest private foundations. He concluded that NEH is by far the most important single external source of funding for the humanities in the US today. "It is no exaggeration to say that the decisions made concerning the budget for NEH (overall size and composition), and the subsequent administration of the funds, have an absolutely decisive impact on the health and character of the humanities in America." Bowen's analysis showed that the 30 largest private foundation in the United States, taken together, make grants to the humanities in a given year that are less than HALF the grants made by NEH alone.

Not surprisingly, there is considerable interest in NEH's appropriations. Given its impact on so many fields and, in many ways, the quality of life in this country, how adequate are NEH resources? First, I am pleased to be able to testify before you in this first year since 1981 in which the Committee has not been facing recommendations from the Administration for reductions at the Endowments. Thanks to the members of this Committee and your counterparts in the House, it has been possible to maintain the dollar level of of appropriations for NEH in spite of the difficult budgetary climate and downward pressures. However, we must recognize also the reality of a significant decline in real value of the appropriations in recent years. The American Association of Museums has calculated that the FY-87 funding for NEH would have had to have been $53 million (38%) higher than the actual appropriation that year of $138.9 million if the level of funding in 1981 were maintained in constant dollars.

### THE PRESERVATION CHALLENGE

The deterioration of cultural records and artifacts is one of the major problems confronting our society. The Endowment has been playing a key role in mobilizing and supporting research and resource development in libraries, archives and other institutions on the front lines in the battle to save books, papers, films, recordings and other cultural records at risk.

Understanding of the enormous challenge of the brittle book crisis in our nation's libraries and archives has increased markedly over the last two years. A consensus has formed among major libraries and library organizations, foundations, the Library of Congress, and most recently the leadership of the National Endowment for the Humanities that a core plan and the institutional mechanisms are in place to begin a massive project to save at a minimum of 3.3 million volumes of the books at risk. (This figure is only a third of the estimated total books at risk and, I emphasize, a minimum.)

Last month, at the request of Rep. Sidney Yates, the NEH developed a capability statement assessing the immediate and long-range funding requirements for a full response to a plan developed by the Commission on Preservation and Access for preserving on microfilm 3 million volumes that are at risk. Lynne Cheney and her colleagues at the NEH are to be commended for the thoughtful and prudent approach. We believe that the NEH plan (copies of which which were also sent to the Senate Appropriations Subcommittee) forms a sound basis for launching the ambitious program. The NEH plan is flexible in that it seeks to make provision for the numerous preparatory costs and other non-direct filming costs. The NEH plan also gives appropriate attention to other areas besides brittle books (e.g., the national newspaper program, conservation training).

The NEH's capability statement served as a central focus for a hearing chaired by Rep. Yates on April 21 which in symposium fashion brought together an extraordinary grouping of knowledgeable individuals from libraries, foundations, federal agencies, and other institutions concerned with the preservation issue. Lynne Cheney, James Billington, Patricia Battin, William Bowen and others discussed the brittle book problem from three vantage points: 1) The plan for large-scale filming of at least 3 million already embrittled volumes; 2) the Library of Congress' efforts to make feasible massive deacidification of books before they become embrittled; and 3) issues surrounding conversion to publication of books of potential lasting value on permanent or at least alkaline paper. A major outcome of the hearing was recognition that libraries, foundations and others are ready to move ahead on the filming plan; and that the National Endowment for the Humanities was both in agreement with the general plan and prepared to handle effectively a rapid increase in federal funds for the effort.

We know that finding additional funds is especially difficult this year. Nonetheless, because resolution of this major problem is so clearly in the national interest and because of the importance of a rapid response, we urge the Subcommittee to appropriate at a minimum, the $8 million in additional resources for NEH's preservation activities in FY-1989.

As indicated, we view NEH's 4/19/88 capability statement as thoughtful and encouraging in that the Endowment is now addressing the preservation funding problem in its own long-range planning on a basis far closer to the required levels. We do not believe, however, that a major national problem, requiring a national strategy, deserves anything less than a major federal effort. By forming the Commission on Preservation and Access, the private sector has taken a major step forward. But even this effort can not succeed without the vigorous and enlightened participation of the relevant federal agencies. We believe that there are several factors which indicate the need for a higher level of funding earlier, and an accelerated schedule. These factors include:

o A strong consensus has formed that we must move rapidly to preserve as much of the published cultural record of the last 150 years, much of which is endangered by the deterioration of the acid-based paper on which it is recorded;

o The goal of saving 3.3 million of the volumes at risk is a minimum "common core" and to the extent possible we should look to saving as much more of the estimated 10 million volumes at risk;

o There are advantages to building the microfilming effort on a faster track (i.e., rather than over a 20-year period, filming the more than 3 million volumes in 15 or even 10 years). The impediments to moving faster (and thus saving more) are limitations in funding not in the capability of affected institutions to carry out the work;

o The front-line organizations (i.e., research universities, other libraries including the Library of Congress, library organizations, and foundations are ready to go;

o The Commission's cost estimates are for filming. There are a number of related costs such as selection of titles, coordination to avoid duplication, and so forth. Universities and private foundations will continue to provide significant help but it is probably not realistic to expect those institutions to be able to find all the funds required to support the work at this new level;

o As massive filming gets under way, economies and new technologies will undoubtably occur which may lower the costs in connection with the overall effort. These are likely to come in expediting access to the 'saved' material rather than the actual filming, which is necessarily labor intensive;

And perhaps most importantly --

o Materials saved on microform are available for inexpensive reproduction on film or other media. In this way it will be possible, as Warren J. Haas put it, to transform cultural assets acquired over many years by a relatively small number of institutions into a truly national asset that will be available to all in the nation who have need of them, regardless of their communities or affiliations.

## PROGRAMMATIC NEEDS AT THE ENDOWMENT

The Alliance wholeheartedly supports and, in fact urges, your strong and positive response to NEH's role in the preservation challenge as discussed above. Equally clear should be our concern that the budgets of the other regular programs of the Endowment are in need of additional resources -- their ability to respond to the most urgent needs from the field has become increasingly strained as the real dollar value of their appropriations has declined on average by more than one third over this decade. Therefore, we urge the Subcommittee to reject proposals for reductions below current program budgets and to find ways to begin increasing these same budgets.

(An additional element is the lag in federal support for the humanities in contrast with federal support for the arts. Once rather close, the gap has been widening with the National Endowment for the Arts presently administering a budget more than $27 million higher than NEH. While we recognize that parity as such between the endowments is not currently a credible political equation, there is also no reason to believe that the arts contribute more or that they are more in the public interest than the humanities.)

Last month, Lynne Cheney testified that within the general context of the adequacy of NEH appropriations to meet the needs of the highest quality work proposed to the agency, programs in the Division of Research Programs and the Office of Challenge Grants are under the heaviest budgetary stress. This information confirms anecdotal evidence gather by the Alliance and others although in varying degrees the problem pervades most of the programs at NEH --

o Challenge Grants have proven to be one of the most important mechanisms used by NEH to strengthen the nation's humanities institutions. The matching requirements have been the catalyst for greatly improved development skills at many of the recipient organizations. Competition for challenge grants has always been brisk but an analysis of FY-1987, when 210 proposals were processed, illustrates that the funds are not adequate: 37 proposals were rated Excellent in the peer review process - 31 of these received grants; Of 52 rated Very Good - 12 received grants; Of 28 rated Some Merit - none received grants. This has been the NEH's most effective program for attracting private funding -- The multiplier effect really works!

o Division of Research Programs grant figures also show that there is a significant shortfall in funds to support the most highly ranked work. For example ACCESS program records for FY-87 indicate that of 168 proposals, 39 were funded: 34 proposals ranked were ranked Excellent but only 26 of these were funded; Of 14 ranked Very Good, 4 were funded. (The ACCESS program supports a variety of activities aimed at increasing the availability of research collections such as cataloging projects, records surveys and the like. Often these projects are important to preservation because the program supports assessments of materials thereby identifying deteriorating materials in need of preservation or conservation.) Likewise, the TRANSLATIONS program received 129 applications and funded 34: All 25 proposals ranked as Excellent were funded; 9 of 14 ranked Very Good. We believe that another result of the long-term squeeze on funds at NEH is that many projects are funded but with considerably reduced budgets.

The Research and Challenge Grant programs are only the most pressing needs -- Virtually all programs of all divisions of NEH need larger budgets.

I would like to conclude with a few examples of the importance of current Endowment work to scholarship, education and public life in America.

State Humanities Councils play a critical role in the development of public humanities in this country. I am sure any one of the Councils could document numerous opportunities missed because of the shrunken buying power of their budgets. Recently the State Councils were asked to document all of the education projects supported over the last four years. I am pleased to submit for the record a copy of the resulting compilation of projects which was reproduced by the NEH Division of State Programs for its "State Councils and Education Conference." The individual reports contained in the document illustrate the rich range and important roles the Councils can and do play in strengthening our schools and in catalyzing public involvement in such issues. It might also be noted that few of the State Humanities Councils receive state funds in contrast to the generous funding provided for State Arts Councils -- Once again illustrating the critical importance of federal support for the humanities.

The Division of General Programs contains the Endowment's other major programs for facilitating the public in participating in the humanities -- especially in understanding and appreciating their cultural and intellectual heritage. Of particular note, I believe, are the Endowment's efforts to encourage stronger and more diverse interactions between university-based scholars and public humanities institutions including historical organizations, libraries, and museums. For example, a recent Endowment grant to the American Association for State and Local History supports planning for two conferences aimed at strengthening history museums as interpreters of American history. A long term benefit of the project is that it is leading to a far clearer picture of the roles scholars play or could play in the work of historical organizations. If the project also leads to a revitalized relationship between university-based scholars and their colleagues in historic organizations, we will all be the richer for it.

In the programs of the Division of Education Programs, the Endowment offers support in thoughtful and effective ways aimed at strengthening formal education at all levels. An area of particular concern to the members of the Alliance -- forging more and stronger partnerships between scholars and higher education institutions on the one hand and teachers and school systems on the other -- has been receiving increased attention at the Endowment. Two examples:

o The PATHS program in Philadelphia has directly organized and/or brokered imaginative collaborative projects between the public schools and various scholarly institutions aimed at improving the teaching of history. For example, a month-long summer institute was held at the American Philosophical Society for public school teachers to study local history. The teachers utilizing the resources of the APS (America's oldest learned society and a major independent research library) worked with a broad mix of scholars ranging from recent PhDs to senior scholars. The teachers were able to return to their schools refreshed and actively engaged in the history of their city.

o The Endowment recently launched a Teacher/Scholar Program which provides funds for sabbatical leave for one elementary or secondary school teacher from each state. Targeted at strengthening the quality of the teaching of the humanities, the program, which is co-sponsored by the Readers Digest Foundation (another example of federal-private partnership) permits the grantees to enrich their knowledge of history, literature or any other area of the humanities through study at academic institutions or as independent scholars.

Finally, the NEH's Division of Fellowships and Seminars provides assistance which benefits the work of all other programs of the Endowment. Last year, through its fellowships for university teachers, college teachers, and independent scholars, NEH invested $27,500 in each of 247 award winners. (The winners were selected from among nearly 1,600 applicants.) For most of the fellowship recipients, the awards means the opportunity to research and write for a year. Our experience over more than two decades indicates that NEH fellowships have meant much more. Fellowships have made possible thousands of books and other publications of great value not only to other scholars but also to the reading public; stimulated renewed and invigorated teaching which in turn has produced better educated and more humane students; facilitated the development of ideas later manifested in public lectures, educational television, and the like. Thus, fellowship support is basic to the humanities. In short, even a small grant from NEH is like a stone tossed in a pond, sending ripples in every direction and benefiting a larger audience than might at first be apparent.

The humanities constitute a system in the United States -- every part having impact on every other. This is why the Alliance supports the entire range of activities comprised in the National Endowment for the Humanities -- from fellowships and research through education and public programs.

Mr. ESTES. The next scheduled witness is Mr. Donald Kokinda.

[No response.]

## STATEMENT OF LORETTA NEUMANN, SOCIETY FOR AMERICAN ARCHEOLOGY

Mr. ESTES. Then we will proceed with Loretta Neumann.

Ms. NEUMANN. I am the Washington representative for the Society for American Archeology, and I am very pleased to be here. Your committee has done a great deal to preserve and protect and interpret the archeology record of this country, and it is an important function, because so much of what is done with archeology in this country depends on Government support just by the nature of the resource. We have come with a wish list here, and you will see it is quite lengthy.

I will summarize it very briefly. We focus on several land managing agencies. This year we have focused specifically on the Park Service, the Fish and Wildlife Service, and the Forest Service. That is not to shortchange the BLM. They need cultural resource programs too, but of the ones we're looking at in the budget to focus on, we're focused on the National Park Service, both the Park Service lands that it manages and the programs, the grant programs such as the historic preservation fund and the Land and Water Conservation Fund.

One request we have is in the inability of the Federal agencies, the Park Service in particular, in the State grant programs under the historic preservation fund from using the historic preservation fund to acquire and develop archeological sites. Unlike buildings, these sites depend on that kind of work, and there is no profit motive there in the private sector to take care of them. We would ask that some funds be allowed for that purpose.

For the Fish and Wildlife Service we note that less than 1 percent of the Fish and Wildlife Service lands have been inventoried for the cultural resources. It is the smallest percentage of any of the land management agencies. So, we urge an increase in funding, $600,000, be appropriated for those purposes, and also $250,000 for the Stillwater Wildlife Refuge, which has been in trouble because of the erosion—you are probably well aware of that problem—and the human skeletal remains that need to be taken care of.

The Forest Service, there is a need for $18.7 million in the cultural resource management program. This was identified by the Forest Service itself, but the administration cut that to $12.2 million, which is below the fiscal year 1988 level. We urge you to restore the funding, the full funding, to $18.7 million.

### PREPARED STATEMENT

There are other things in my statement which you can read at your leisure. I appreciate the opportunity to testify.

Mr. ESTES. Thank you, Ms. Neumann

[The statement follows:]

# STATEMENT OF LORETTA NEUMANN

Mr. Chairman, the Society for American Archaeology is pleased to have the opportunity to present this testimony. The continued interest and support of your Subcommittee is a major stimulus for archaeological resource protection, research and interpretation throughout the United States.

The Society for American Archaeology (SAA) is an international scholarly and professional association of both professional and avocational archaeologists concerned about the discovery, interpretation and protection of the archaeological heritage of America. As such, the SAA has had a long partnership with the Department of the Interior and other federal land managing agencies to help preserve and promote the nation's cultural and natural resources.

This year the SAA has several specific funding requests to bring to your attention.

## NATIONAL PARK SERVICE

### Operations of the National Park System

### Proposed Reductions of Base Funding:

The Society is greatly concerned about the Administration's proposed reduction in the Park Operations budget. The requested cut of $52.2 million in federal funding, to be supplemented by fee collections, seems to contradict the intention of the enabling legislation.

Indeed, as we understand it, the intent of the park fee legislation was not to substitute federal appropriations, but rather to supplement them. Activities which had not fully benefitted from direct federal appropriations were to receive additional funding through new or expanded park fee collections. These activities include resource protection, research, interpretation and, in the case of user fees, maintenance.

The resources that need this funding are fragile and irreplaceable. They include, among other things, some of the most significant archaeological sites in the world. To cut funding for work that is so needed for the protection of these sites would be a violation of the public trust that has been placed in the Park Service since it was established in 1916. Such a reduction would also be economically unwise, as future costs to do the work will be much higher.

We hope that you will reject the Administration's short-sighted approach and that you will recommend sufficient funding levels for the ONPS budget to reflect both Congressional intent and to meet the real resource protection needs for which the original park fee legislation was enacted.

### El Malpais National Monument

We urge you to increase the level of funding for the El Malpais National Monument, an area that contains outstanding archaeological resources reflecting much of the long and intriguing cultural history of the Southwestern United States. The Administration requested $100,000 for park operations for the monument. The Society supports increasing this to $250,000. (We also urge an additional $5 million for the Federal side of the

Land and Water Conservation Fund for acquisition of private holdings within the National Monument.)

Associated with El Malpais is the Masau Trail. This trail links many of the most important and impressive remains of prehistoric and historic sites in the Southwest including Chaco Culture Historic Park, Pecos and Aztec National Monuments as well as El Malpais. $250,000 is needed to develop the interpretive programs for this trail. In addition, nearby Salinas National Monument is an outstanding example of historic pueblo structures and introduced Spanish conquest structures. Salinas needs $500,000 for ruin stabilization and maintenance.

## Anti-looting

As you are probably aware, the SAA has made a major initiative to stop the looting and vandalism of archaeological and cultural resources throughout the nation. In this light, we urge you to recommend an addition of not less than $1 million in the ONPS budget for anti-looting efforts in units of the National Park System. This is the same amount as was earmarked by the Congress in the fiscal 1988 appropriations.

Looting of archaeological sites is a national problem, one that is destroying our nation's cultural heritage. This outright criminal action is increasing by all accounts. The recent GAO report, "Cultural Resources: Problems Protecting and Preserving Federal Archeological Resources" (1987) highlighted the seriousness of the problem and recommended increases in funding, training and law enforcement. We must all recognize the seriousness of this problem. If something is not done soon there will be no intact archaeological sites left in the United States. Archaeological resources are like endangered species: Once destroyed, they are gone forever.

Looting threatens national park resources as well as those on national forests and other public lands. (Looting also destroys resources on private lands, and thought must be given soon on what can be done to prevent this too.) In the case of the NPS and other Federal agencies, there are urgent needs for stronger enforcement of the Archaeological Resources Protection Act (ARPA), for increased staffing and funding for archaeological protection, and for more public awareness and education.

## Curation

Last year Congress appropriated $2.73 million to begin a multi-year project for the cataloging and curation of the vast NPS collections. Over 70% of these collections are archaeological in nature and require special care. This year, the Administration requested no funding to continue this program. This is a massive undertaking and requires an enormous amount of work if it is to be done and done well. We urge your Committee to support sufficient funding within the ONPS budget to provide $2.8 million to continue this important program.

## National Recreation and Preservation Programs

The SAA deplores the Administration's attempt to cut the funds for the National Register Programs from the $7.8 million appropriated for fiscal 1988 to $7.3 million for fiscal 1989. We urge you to restore the funds for these programs, including funds for the Historic American Buildings Survey (HABS) and Historic American Engineering Survey (HAER).

## Departmental Consulting Archeologist

Included in the National Preservation Programs account is the Office of the Departmental Consulting Archeologist (DCA). The DCA is responsible for coordinating the overall federal archaeological program. In this capacity the DCA office needs additional funds to continue its efforts in anti-looting, law enforcement, employee training, and public information clearinghouses.

We request that an additional $200,000 be appropriated and earmarked specifically for the DCA office for these important activities.

## Historic Preservation Fund

The SAA supports a minimum of $50 million for the Historic Preservation Fund. This is far below the sum annually authorized by the National Historic Preservation Act. Considering the preservation needs facing the United States today, it is a reasonable amount to request.

For archaeology, the Historic Preservation Fund's matching grants to the States serve two major functions: (1) to assist with surveys, investigations, analyses and interpretation of archaeological sites and their resources; and (2) to support state activities in the review process which protects sites from federally funded undertakings pursuant to Section 106 of the National Historic Preservation Act. Among other things, the State share of the Fund is also used to nominate archaeological sites to the National Register of Historic Places.

A recent "needs assessment" by the National Conference of SHPO's shows how States regard archaeological resources as important to their history. Many States highlighted archaeologically related projects. Indeed, it is not widely known, but the Historic Preservation Fund is one of the most important mechanisms for federal funding of archaeological research, survey, evaluation, investigation, and protection. The State-funded programs are essential to assuring that archaeological and other historic preservation activities are carried out as Congress intended.

We further urge the Committee to allow the use of the Historic Preservation Fund for purposes of acquisition and development of archaeological sites. This function was eliminated in fiscal 1981. Unlike historic buildings which may get tax credits or gain economic value from private investment, archaeological resources do not benefit from market-oriented approaches. Archaeology, by the nature of its subject matter, depends a great deal on government support.

## Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) provides an important tool for national, state and local land acquisition, planning, and development of parks and recreational areas. The SAA urges your Subcommittee to recommend, as you have in the past, substantial increases in both the State and Federal sides of the LWCF.

## State and Local LWCF Programs:

Of the total amount we are requesting for the LWCF, an estimated $100 million is needed for the state matching grants.

Many archaeological and historical resources have benefited from the State side of the LWCF. Sites ranging from Indian burial grounds, pre-Revolutionary War forts, industrial period sites, Civilian Conservation Corps buildings and many others have been incorporated into parks and recreation areas.

The State side of the LWCF is important to preserving and protecting both natural and cultural sites. Studies have shown that there are $340 million in grant applications currently pending and a needs estimate for the next three years of $1.9 billion. Therefore, $100 million is a reasonable, usable amount.

Federal Side, National Park Service:

The Federal side of the LWCF has also benefited archaeological and historical resources through the acquisition of lands and structures in new and expanded units of the National Park System. These include, for example, the Cuyahoga Valley National Recreation Area in Ohio, which contains over 25% of the archaeological resources in the entire midwest region of the National Park System. Similarly, significant archaeological sites have been acquired at other new areas, including the Santa Monica Mountains National Recreation Area in California.

In the Administration's budget, federal funds for the LWCF are proposed to be cut drastically below the needed level. The Society supports the requests made by the National Parks and Conservation Association and the Wilderness Society for $675 million for the Federal side of the Land and Water Conservation Fund, of which over $190 million would be earmarked for the NPS acquisition program. As noted earlier, the SAA would encourage the earmarking of about $5 million for the acquisition of inholdings within the newly authorized El Malpais National Monument in New Mexico.

## THE FISH AND WILDLIFE SERVICE

The Fish and Wildlife Service has jurisdiction over approximately 90 million acres of land, constituting one of the largest, protected administrative systems of land and water in the United States. Many of these lands have been acquired or designed by the federal government in an effort to protect valuable wildlife habitat, wetlands, and other resources for public use and scientific study. In addition to protecting our wildlife, however, it is important to note that this system contains thousands of archaeological sites that provide evidence of past human adaptation to the natural environment. Funding for completion of basic surveys and archaeological resource protection work for compliance with federal historic preservation requirements has been and continues to be lacking.

The Fish and Wildlife Service does not have a separate fund for the inventory and protection of archaeological and historic sites on its lands. Archaeological inventories are funded largely through individual agency undertakings as part of project costs. This results in an inefficient, piece-meal approach to managing the agency's archaeological sites. The most recent statistics compiled by the Secretary of the Interior through the end of fiscal 1986 indicate that the Fish and Wildlife Service has completed inventories on less than 1% of its lands, a much smaller percentage than other major land managing agencies.

Without sufficient documentation, it is difficult to reach an accurate assessment of the condition of archaeological sites managed by the Fish and Wildlife Service. As this Committee is undoubtedly aware, recent trends suggest that this country's archaeological record is being destroyed at an alarming rate. At recent hearings conducted in Colorado by the House of Representative's Committee on Interior and Insular Affairs, the Fish and Wildlife Service estimated that between 30-50% of its archaeological sites located in the southwestern United States had been partially looted or destroyed. The Society for American Archaeology feels that this destruction and deterioration is part of a larger national trend that deserves the immediate attention of the Congress and the Fish and Wildlife Service.

The Society for American Archaeology requests this Committee secure add-on funding for the Fish and Wildlife Service to begin an agency-wide effort to document and protect archaeological resources. The Society recommends that $600,000 be appropriated for use by the Fish and Wildlife Service in Fiscal 1989 for these purposed. This initial funding should be used for necessary work that is not funded by the Fish and Wildlife Service for compliance with section 106 of the National Historic Preservation Act or for special appropriated projects such as the archaeological work that is underway at Stillwater National Wildlife Refuge in Nevada.

The Stillwater National Wildlife Refuge is in need of a add-on of $250,000 earmarked specifically to continue the salvage archaeology of human skeletons begun in response to massive erosion. The human skeletal remains have been exposed to natural elements, looters and vandals due to snow melt erosion. Remains of over 120 individuals have been discovered. These must be professional excavated, documented and studied prior to reinterment.

## THE FOREST SERVICE

The Society is greatly concerned about the Administration's proposed reduction in the Recreation Management Program, line item for Cultural Resource Management. The Agency identified a need for $18.7 million for cultural resource projects. The Administration cut that to $12.2 million. This is below the fiscal 1988 level.

### Cultural Resource Management Budget Needs

- $15 million to regions for cultural resource management programs
- $3 million to regions for special initiatives
- $0.5 million for Challenge Agreements
- $0.2 million for Washington Office for two new positions in Cultural Resource Management and for implementing new initiatives.

### Cultural Resources Management Project Related Work

Although the Forest Service, as a multi-use agency, has a mission not specifically directed to cultural resource preservation, under federal laws it has a responsibility to manage cultural resources on its lands. This federal requirement mandates that the Forest Service take cultural resources into account prior to any federally funded, licenced, or permitted activity or any activity occurring on federal land.

As part of this responsibility, some 16 million acres of Forest Service administered land have been surveyed for cultural resources since 1971. About 80 percent of these surveys have been in response to development or commodity projects (such as timber sales, mineral exploration or road construction). As a result of these surveys, the Forest Service is identifying 10,000 -12,000 new cultural properties a year. About 350 Forest Service properties have been listed on the national Register of Historic

Places; another 9,000 properties have been determined eligible for listing. USFS archaeologists have found that approximately 95% of prehistoric resources and 80% of historic structures are eligible for listing.

The Forest Service identified a minimum of $15 million needed for project-related work including timbers sales, road construction, land exchanges, and watershed projects just to keep in compliance with the National Historic Preservation Act.

## Forest Service Special Initiatives

The USFS recognized the need for $3 million for special initiatives in program management activities including survey of areas of high cultural resource potential that were not scheduled for development (wilderness areas, etc.), inspection and monitoring of important properties to determine condition and need for protection, and interpretation of selected properties for the education and benefit of the visitors. Special Initiatives also include stabilization of selected properties threatened with imminent collapse or deterioration, development of management systems and databases to improve control of property records and collections, development of improved management techniques, and the evaluation of some of the backlog of unevaluated cultural properties (now exceeding 80,000 properties Nationwide).

Other special initiatives which will aid in streamlining the process include

- Curation procedures and records management systems must be developed to aid in accounting for site and artifact data and collections.
- Systems for reporting illegal activities and artifact theft, illegal digging and site destruction must be developed. Current Congressional legislation is pending which will require federal agencies to do this. In addition, the most recently released GAO report "Cultural Resources: Problems Protecting and Preserving Federal Archeological Resources" makes similar claims.
- Efforts must be made to provide cultural resource management training programs for Forest Service employees to increase the awareness of and skills in management of cultural resources.
- Management procedures must be developed that will allow consideration of cultural resources in the planning and management stages of other Forest Service projects.
- Cultural resource awareness for the forest visitor must be addressed in order to increase their knowledge and enjoyment of cultural resources and increase their protective behavior towards it.

## Challenge Agreements and Other Innovative Programs

Last year the Forest Service initiated an innovative program called Challenge Agreements. These agreements are matching grants which produce a huge benefit. For a small federal input substantial amounts of cultural resource preservation is being accomplished. The Forest Service used $500,000 in Fiscal 1988 and the result is over $1 million in cultural resource work. Agreements were made with county or city governments, private corporations, private organization including the Boy Scouts of America, local historic preservation organization and groups with special interest in particular projects.

In fiscal 1989, the SAA requests $.5 million to enable the Forest Service to continue these successful projects.

Examples of the Challenge Agreements in Fiscal 1988

- o Fish Creek Bridge (Colorado) to perform historic Bridge. rehabilitation
- o Podunk Guard Station (Utah) rehabilitation of historic ranger station for public education and interpretation.
- o Custer Museum and Townsite (Idaho) - development of public interpretive facilities and historic preservation.
- o Birch Creek Charcoal Kilns (Idaho) - historic preservation and protection.
- o Yankee Fork Gold Dredge (Idaho) - historic preservation and pubic interpretation.
- o Valley Creek Guard Station (Idaho) - rehabilitation and pubic interpretation.
- o White Rock Cabins and Lodge (Arkansas) - historic preservation and public interpretive development
- o Warwoman Dell Recreation Area (Georgia) - historic preservation and rehabilitation.
- o Gladie Historic Post Office (Kentucky) - historic rehabilitation and adaptation to visitor interpretive use.
- o Shell Knob Recreation Area (Missouri) - historic preservation.
- o Point Iroquois Lighthouse (Michigan) - historic preservation and pubic interpretation.
- o Mammoth Mine (California) - historic preservation, stabilization and public interpretation.
- o Stevens Pass Interpretive Project (Washington) - historic inventory and interpretive development.

The use of volunteers or hosted programs is yet another approach to getting a lot for a little. On the Superior National Forest in Minnesota, experts estimate that for approximately $5,000 last year, the Forest Service received over $40,000 in work equivalent. This is a 1:8 ratio. Most of the participants in the Superior project are volunteers or work study students from the University. Many other forests use senior citizens for similar projects.

There are many exciting projects which could be accomplished for a small federal input. For example, an add-on of less than $40,000 would begin a Native American oral history program to train Native American students to collect oral histories from tribal elders who once lived on what is Superior and Chippewa National Forests. The advantage of this type of program is that it offers training opportunities for minorities, enables the Forest Service to complete required work including revision of Forest plans and treaty rights. It supplements the forest history program in addition.

## Washington Office Staffing Needs

It is vital to the continued protection of the resources under the stewardship of the Forest Service that sufficient staff be available in the Washington Office to provide the needed coordination, training and assistance to the Forest Service staff. At present the Washington Office has a Cultural Resource Management staff of one person to provide these services to the entire Forest Service. A one person staff is seriously limited in the number of new initiatives that can be undertaken. Increasing the Washington Office by two full time staff persons will permit the expansion of the program into areas where work is urgently needed. This is key to the success of most of the other initiatives. A strong Washington Office effort is necessary to be successful in addressing these issues.

The Society for American Archaeology supports the request for $.2 million for the Washington Office to increase staff by two full time cultural resource persons and to implement new cultural resource management initiatives.

### Specific report language

In addition to these funds, the Society requests the Committee include specific language encouraging the Forest Service to take a proactive approach to cultural resource management and to address the needs of non-project related cultural resource protection and resource enhancement.

## CONCLUSION

The Society for American Archaeology recognizes that there is a large budget deficit and that under current deficit reduction laws additional funding for Federal programs is difficult to achieve. Budgets should be balanced in such a way that the public's interest is protected. The SAA feels strongly that the budget should not be "balanced" to the detriment of our nation's natural and cultural resource programs. We ask the Committee to continue to show concern and support for these vital programs by supporting our requests.

## SUMMARY OF AMOUNTS REQUESTED

## NATIONAL PARK SERVICE

### Operation of the National Park System (ONPS)

o Base Funding, $52.2 million to restore base funding which the Administration proposes be made up by fees.

o El Malpais, $250,000 for park operations,
$5 million land acquisition
$250,000 for interpretation and development of the Masau Trail
$500,000 for stabilization of Salinas National Monument

o Anti-looting, $1 million
o Curation, $2.8 million

### National Recreation and Preservation Programs

o National Register Programs $445,000
o Departmental Consulting Archeologist $200,000

### Historic Preservation Fund

$50 million for State Historic Preservation programs and for the National Trust for Historic Preservation

### Land and Water Conservation Fund

$757 million, with $100 million specifically directed to state funding

## FISH AND WILDLIFE SERVICE

Refuges and Wildlife Activity, for Refuge Operations
o Base inventory $600,000
o Stillwater National Wildlife Refuge salvage data recovery $250,000

### FOREST SERVICE

Recreation Management Program - Cultural Resource Management

- Cultural Resource Management
  $15 million
- Special Initiatives
  $3 million
- Challenge Agreements
  $.5 million
- Washington Office staffing and initiatives
  $.2 million

## STATEMENT OF REV. BYRON COLLINS, ON BEHALF OF REV. WILLIAM L. GEORGE, S.J., ASSISTANT TO THE PRESIDENT OF GEORGETOWN UNIVERSITY FOR FEDERAL RELATIONS

Mr. ESTES. The next witness will be Father Byron Collins.

Reverend COLLINS. Father George has asked me to fill in. I don't think I will be adequate, but I will do it in his way. He is always very brief.

First, the hybrid fuel cell bus program is the target. The funds requested for the continuation is $2.6 million. This will enable the phase 1 to be completed and phase 2 started. He has arranged that the private industries participate with funds in the program. It is in his testimony. General Motors specifically.

His reasoning is that this becomes a commercially viable project as they see it. So, on his behalf he extends his thanks to the committee for their support.

There is one other project in which he has been involved on campus. It is part of our community energy program. The funding for it is completely private. It is done with Pepco and Energy Dominion. It is a large project. It will be 40 to 50 megawatts of gas turbine producing 20 to 25 megawatts of electricity, and he has provided for the committee the fact that it is completely privately funded.

Thank you.

Mr. ESTES. Thank you, Father.

[The statement follows:]

# STATEMENT OF REV. WILLIAM L. GEORGE

Mr. Chairman and members of the committee, I am Rev. William L. George, S.J., Assistant to the President of Georgetown University. Thank you for the opportunity to testify on the subject of Hybrid Fuel Cell Buses.

The Hybrid fuel cell bus project is well underway. In order to continue, I would ask the committee to provide $2.6 million for FY'89. These funds will complete Phase I, initiate Phase II, which will lead to a complete laboratory tested vehicle to determine the overall effectiveness of the system, and provide matching funds for the project's capability to take advantage of advanced fuel cell commercial applications.

In April 1987, an RFP was issued for competitive bidding from outside contractors. In September, cost-sharing contracts were awarded to Energy Research Corporation and Booz-Allen & Hamilton. Both companies have developed project management plans and work has begun on the system trade-off studies required in order to determine the best power system configuration for the transit bus application. In addition, however, Energy Research Corporation (ERC) is refurbishing their 7.5 kw breadboard fuel cell system which will be used in the initial hardware development. Booz-Allen and Hamilton have performed an initial economic study comparing the economics of future fuel cell powered bus systems with those of diesel powered bus. Their results indicate that the economics appear favorable for the fuel cell system. Argonne National Laboratory is providing the technical management for the project. Other organizations involved in the development include Los Alamos National Laboratory, Chrysler and Englehard corporations and the universities of Florida and Alabama.

General Motors has expressed an interest in working with us on the development of advanced fuel cell applications for this project. It is gratifying to see that commercial manufacturers are beginning to confirm our earlier conclusion that fuel cell vehicles (busses) are part of the equation in the not too distant future. As parallel research and development goes forward, we may be able to fit and evaluate the busses with various advanced fuel cells when feasible. What seems to have attracted industry to this project is the objective of producing an actual commercially useful bus.

Much has already been accomplished. The bus route on which the prototypes will be tested has been studied in great detail. Collecting data on the actual test environment (e.g. distance between stops, dwell times, % grades, etc.) will facilitate the evaluation of vehicle operation. This information has already been entered into a computer model and simulated runs have been made in order to select a vehicle which is the best suited to a fuel cell/battery power system.

The Atmospheric Fluidized bed boiler is still functioning. We will be supplying almost all our steam needs with coal this summer, except for a brief period in June when we will have to use some gas boilers. The turbine has been running at low pressure and will be at high pressure for a while which will produce 2.8 megawatts. We expect to average 1.3 megawatts over the summer. One megawatt saves $78.00 per hour. In April we will turn off the AFB as the DOE wants us to measure any changes in the size of the tubes.

As part of Georgetown University's Community Energy System, the University has initiated another completely privately funded project with PEPCO and Energy Dominion Resources, Inc. This will use a 40-50 MW gas turbine driven generator and a 20-25 MW heat recovery steam generator. Without the Congress' help and confidence in our system, this major University Commercial Demonstration project would not have been possible. I am happy not to need to request funds for this ambitious project.

I've noticed fewer Geese, but more ducks wintering in Maryland's Eastern Shore this year. Hunting pressure is, in my observation, a major factor for the decline in geese. Another disquieting fact is the use of steel shot. I observed many cripples and frustrated hunters. I hope you continue to support waterfowl and responsible hunting.

On behalf of our President, Rev. Timothy S. Healy, S.J., thank you for the opportunity to testify.

## MAJOR MILESTONES

### FUEL CELL/BATTERY BUS PROGRAM - (Present Schedule)

**Phase I**

| | |
|---|---|
| o Complete Trace-off Analysis and System Design of Fuel Cell/Battery propulsion System | Apr 1988 |
| o Complete Fabrication of Fuel Cell and Battery | Oct 1988 |
| o Complete FC/Battery Brassboard Assembly | Mar 1989 |
| o Proof of Feasibility FC/Battery Propulsion System Verified | Sep 1989 |
| o Select Phase II Contractor | Dec 1989 |

**Phase II**

| | |
|---|---|
| o Complete Design of Bus Modifications and Integration | Mar 1990 |
| o Complete Modifications and Integration of FC propulsion System in Prototype Buses | Sep 1990 |

Mr. Estes. The next witness is Gov. Jim Sappier, chairman of the Penobscot Indian Nation.

[No response.]

## STATEMENT OF READ HOLLAND, DIRECTOR, SCHOOL OF MINES AND ENERGY DEVELOPMENT, UNIVERSITY OF ALABAMA

Mr. Estes. Our next witness then will be Dr. Read Holland.

Dr. Holland, are you here? Good. Thank you.

Mr. Holland. I am here on behalf of the School of Mines and Energy Development. We submit this statement on behalf of the participating colleges and universities supporting appropriation of funds for the State mining and mineral resources research institute program as authorized, in 1984, through Public Law 98–409.

Support for university mineral programs comes through State-Federal-industry funds and the mineral institute program remains as virtually the only federally supported effort in university training and research in extractive mineral technology. The importance of the minerals in the U.S. economy is underscored by the theme "If it can't be grown, it must be mined."

Thus, the U.S. minerals industry is vital to the economic health and defense capability of the Nation and the educational and research capability of the extractive mineral programs in U.S. universities, supported by the minerals institutes, is essential to maintaining the flow of manpower and technology to the mineral industries.

We believe that Congress was farsighted in reauthorizing the mineral institute program. This program remains today as the only significant federally supported effort in university training and research in mineral technology. At a time of continuing decline in the domestic minerals industry, it is believed to be important to sustain and enhance university training and research to provide the manpower and technology to assist in revitalizing that important sector of the Nation's economy.

Public Law 98–409 authorize an appropriation of $26,800,000 for the mineral institute program for fiscal year 1989. We believe that this amount could be used by the mineral institutes in a way that would significantly benefit the Nation. However, recognizing the realities of budgetary constraints and the Federal deficit, we respectfully recommend a minimum appropriation of $16,650,000. Of that total, we would recommend $7,200,000 for allotment grants to the institutes, $9,100,000 for research grants, and $350,000 for administration of the program.

The mineral institute program is operated through 32 State institutes. The program has two nearly equal efforts: one, institutional or allotment grant support; and two, designated generic research programs.

The allotment grant portion of the program provides an equal amount of basic and flexible support to each of the 32 institutes, which are listed in an appendix to our statement. The $7,200,000 request would provide $225,000 for each institute and would restore the level of funding that the institutes had a decade ago, adjusted for inflation. It is still far below the authorized $400,000 per institute.

For fiscal year 1989 it is required that each Federal dollar expended for allotment grants be matched by no less than two non-Federal dollars. Thus, a Federal appropriation of $7,200,000 for allotment grants would result in a minimum of an additional $14,400,000 in non-Federal funding for the minerals institutes.

Research funds are currently used for support of six generic mineral technology centers which are located at State mineral institutes. Each center has at least one lead university with additional institutes working as research affiliates. Thus the system is fully interactive and cooperative in organization and operations. The generic research areas, the generic center locations, and the center affiliates are listed in an appendix.

In addition to the decline in corporate mineral research that has accompanied the recession in the domestic industry, the Federal investment in this area has contracted to the point that research conducted under the State mineral institute program is the only broad-based mineral research support available today to universities.

Our request for $9,100,000 would continue the respirable dust center at $2,500,000 and would increase funding for the marine minerals technology centers to $1,600,000, would restore funding for the four existing centers to their original level of $1 million each and would allow creation of a seventh generic center.

As we testified last year, we believe that expansion of the number of generic centers and thus the diversity of research is essential. Many knowledgeable engineers and scientists believe that major improvements in mining and extractive metallurgy technology provide the only means of revitalizing the domestic minerals industry.

Such improvements must come through research such as that being performed in the generic centers of the minerals institutes and must be implemented by the engineers and scientists being trained in the universities that house those institutes. Congress was responsive to our request in creating the marine minerals technology center last year. We hope that an additional center can be funded for fiscal year 1989.

Each mineral institute has programs of research and education in the minerals area sustained by annual allotment grants, matched on the basis of 2:1 non-Federal to Federal dollars, for student scholarships and fellowships, pilot research project initiation, scientific equipment acquisition, and continuing education. In 1987 allotment funds we used for student support as 132 undergraduate and graduate students were aided in obtaining degrees in mineral-related fields.

A major portion of the mineral institute allotment funds was used to support 238 research miniprojects. Although no mineral conferences were sponsored this year, 24 continuing education courses were offered. Three special mineral courses and a student field trip also received aid. Equipment purchases were more widespread. Twenty-two major scientific instruments were purchased for 12 laboratories and six institutions added to their stock of computers and peripherals.

At three institutions funds were used on maintenance contracts for major equipment. In addition, three institutions used funds to support technicians and one visiting professor and 10 postdoctoral students were supported. Books were purchased for the libraries at eight schools. Two institutions used funds to aid in the preparation and distribution of newsletters and one institution continued to support the preparation of a State mineral producers list and handbook. These achievements continue to materially aid the Nation in maintaining a viable minerals research and education infrastructure.

The Minerals Resources Committee of the National Association of Universities and Land-Grant Colleges and the National Association of Mineral Institute Directors would like to express their appreciation for the opportunity to testify before this subcommittee. Thank you.

Mr. ESTES. Thank you very much.

[The statement follows:]

## STATEMENT OF READ HOLLAND

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## STATEMENT OF BARRY TINDALL, ON BEHALF OF NATIONAL RECREATION AND PARK ASSOCIATION

Mr. ESTES. The subcommittee's next witness will be Barry Tindall.

Mr. TINDALL. The National Association of State Outdoor Recreation and Park Liaison Officers previously submitted comments to the subcommittee, and they wish to be associated with these remarks. I would wish to call the subcommittee's attention to theirs.

There are three areas I would wish to mention. We are requesting an appropriation of $200 million from the Land and Water Conservation Fund for State alternative could be fully justified. We think $10 million for the urban park and recovery program could be fully justified, and we would support an appropriation of $3 million for the National Park Services's technical rivers and trails program.

Since this subcommittee last considered appropriations for the Department of the Interior, a number of things have occurred. It has been about $2.5 billion more or less from OCS that has gone into general Government spending, leaving really no legacy for the future.

The absence of an appropriation, a significant appropriation last year—despite this body's major effort, I might add—a severely diminished amount for the States has continued to cause stress in that partnership. At least 1 million acres of land has been converted from farm and forest to urban uses. It is probably closer to 1.4 to 1.5 billion acres. And we have spent about $450 billion on health care costs, another 11 to 12 percent increase over 1987.

As a continuing reference to social issues, we have near-epidemic proportions of substance abuse among the youth in many cities.

I mention these things because recreation has in many instances ameliorated the stresses of society in these situations. Increasingly, we are losing leisure time, which is forcing more recreation demand on close-to-home recreation resources.

On the positive side, if you look at the elections of last November and actually going back to 1986 and even a few elections, State and local actions, in the spring of this year, we are seeing citizens making positive choices about bond issues for parks and recreation: in 1986 about $1 billion in State and local funding, in 1987 $400 million to $600 million in some significant issues already this year.

We have an attachment to our statement which documents the needs from Land and Water Conservation Fund for State alternative. A 3-year projection shows about $1.9 billion in need.

Now, having said that, we have no illusions that the present fiscal and political conditions are going to allow that level of support. We would hope, however, that the subcommittee could find a window of opportunity, as others have described it, somewhere in the $50 to $75 million range that could be a viable target to look at.

We think there should begin to be a more equitable distribution, if you will, between Federal systems and the non-Federal systems so that we can, in fact, hopefully, save Government money over the long term and create the partnerships that are so important in the provision of park and recreation opportunities.

That ends my statement, and we would be happy to answer any questions you may have. Thank you.

Mr. ESTES. Thank you, Mr. Tindall. We have no questions.

[The statement follows:]

## STATEMENT OF BARRY TINDALL

The National Recreation and Park Association recommends the following for fiscal 1989 appropriations for the Department of the Interior and Related Agencies.

o An appropriation of $200,000,000 from the Land and Water Conservation fund for reinvestment through the states is fully justified.

o Renewed funding for the Urban Park and Recreation Recovery Fund would be of strategic importance to older cities. At least $10 million is fully justified.

o An appropriation of $3,000,000 for National Park Service rivers and trails technical assistance would stimulate significant state, local and private efforts.

Since the Subcommittee considered appropriation needs one year ago we are reasonably certain about the following:

o About $2.5 billion in revenue from Outer Continental Shelf receipts has been consumed by others, leaving no permanent legacy for the future.

o The magnificent public partnership developed through the Land and Water Conservation Fund Act is under serious fiscal stress.

o At least another 1 million acres of farm and forest has been 'urbanized.'

o The nation's medical bill has increased another 11 to 12 percent -- to over $450 billion.

o In some places substance abuse among youth has increased to near epidemic proportions.

o Discretionary time -- the time most Americans have for recreation -- has continued to decline, thus putting additional pressure on local and other 'close to home' recreation resources.

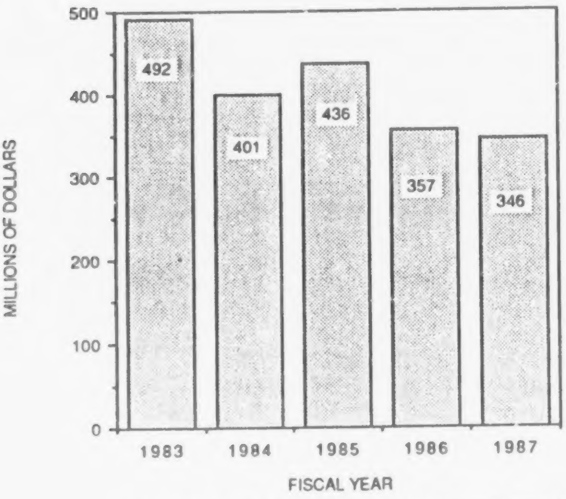
o Voters in states and localities across the nation have approved bonds and other fiscal programs to address recreation, parks and related needs.

This is the briefest sketch of the world faced by the advocate of a higher quality of life through parks and recreation, and the conditions faced daily by park and recreation agencies and staff. As distressful as some of these situations may seem, most advocates, including our membership, remain hopeful. We ask for the Subcommittee's support for those programs mentioned specifically at the outset, for the federal land systems, and for associated programs like historic preservation grants. These are addressed in detail by others.

Information supportive of our views on the Land and Water Conservation Fund State Assistance program is attached.

## BACKGROUND INFORMATION: LAND AND WATER CONSERVATION FUND

### LWCF STATE & LOCAL GRANT REQUESTS



Source: Actual Applications, LWCF Annual Reports

### RESULTS OF NATIONAL POLL OF STATES
Projected LWCF Funding Needs

| PROJECT TYPE | 1988 | 1989 | 1990 |
|---|---|---|---|
| | | $ (Millions) | |
| Acquisition | 196.8 | 197.6 | 223.0 |
| Development | 285.3 | 258.6 | 297.1 |
| Rehabilitation | 144.8 | 144.2 | 154.9 |
| TOTALS | 626.9 | 600.4 | 675.0 |

Source: 1987 survey by National Assoc. of State Outdoor Recreation Liaison Officers (NASORLO)

## Estimated Apportionment* of LWCF Grant Funds At $200 Million Level

| | | | |
|---|---|---|---|
| Alabama | 3,443,000 | New Hampshire | 1,979,000 |
| Alaska | 1,737,000 | New Jersey | 5,813,000 |
| Arizona | 2,992,000 | New Mexico | 2,113,000 |
| Arkansas | 2,502,000 | New York | 11,617,000 |
| California | 15,478,000 | North Carolina | 4,224,000 |
| Colorado | 3,136,000 | North Dakota | 1,828,000 |
| Connecticut | 3,329,000 | Ohio | 7,405,000 |
| Delaware | 1,865,000 | Oklahoma | 2,993,000 |
| Florida | 7,072,000 | Oregon | 2,861,000 |
| Georgia | 4,166,000 | Pennsylvania | 8,046,000 |
| Hawaii | 2,086,000 | Rhode Island | 2,117,000 |
| Idaho | 1,891,000 | South Carolina | 3,049,000 |
| Illinois | 7,767,000 | South Dakota | 1,799,000 |
| Indiana | 4,352,000 | Tennessee | 3,793,000 |
| Iowa | 2,768,000 | Texas | 9,250,000 |
| Kansas | 2,592,000 | Utah | 2,352,000 |
| Kentucky | 3,127,000 | Vermont | 1,750,000 |
| Louisiana | 3,613,000 | Virginia | 4,275,000 |
| Maine | 2,006,000 | Washington | 3,803,000 |
| Maryland | 3,964,000 | West Virginia | 2,352,000 |
| Massachusetts | 4,762,000 | Wisconsin | 3,909,000 |
| Michigan | 6,647,000 | Wyoming | 1,725,000 |
| Minnesota | 3,567,000 | District of Col. | 630,000 |
| Mississippi | 2,501,000 | Puerto Rico | 2,705,000 |
| Missouri | 3,990,000 | Virgin Islands | 64,000 |
| Montana | 1,852,000 | Guam | 71,000 |
| Nebraska | 2,235,000 | American Samoa | 22,000 |
| Nevada | 2,005,000 | Northern Marianas | 11,000 |

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* Estimated state allocations based on need and population formula identified in Section 6 of Land and Water Conservation Fund Act

## STATEMENT OF NELLIE L. LONGSWORTH, PRESIDENT, PRESERVATION ACTION

## ACCOMPANIED BY GREG PAXTON, CHAIRMAN OF THE BOARD, PRESERVATION ACTION

Mr. Estes. The next witness will be Ms. Nellie Longsworth.

Ms. Longsworth. I am Nellie Longsworth. I brought with me today the chairman of my board of Preservation Action, Greg Paxton, who is here from Atlanta, GA. He happened to be in town, and I thought he could tell you what it's really like to do preservation as head of an organization in another State.

Very quickly, I will lead off by thanking you for the opportunity to testify today and tell you that we have been very appreciative of the increased money that the Senate particularly helped us last year get last year for the historic preservation fund, bringing it up to $28.5 million.

The predevelopment grants are starting to help a great deal. The lighthouse money we hope will be dispensed quickly, but we are still waiting for that.

This year we are back, and we are asking for $45 million, $38.5 million for the States and $6.5 million for the trust.

Our problems in preservation have accelerated. In fact, it's an interesting twist because no longer are we concerned as much about Government actions and Government funding being involved and that being the thing that is wiping our historic resources, but we are now having a definite problem about private actions taking place on privately owned property where there is large money involved, large development dollars.

I know you have heard about Manassas today. We have other concerns in Jobbers Canyon, in Waterford. So that it's very important to our program that we continue with this funding. It gives us an opportunity to get more comprehensive planning, to bring a partnership of Federal, State, and local government, and also to bring a uniformity to the program throughout the country to help us identify the most significant resources.

It helps us set the standards. As I say, we are very anxious that you hear about the private side, and Greg Paxton will tell you some of the things going on in Georgia.

Mr. Paxton. There is an enormous documented need for historic preservation funding throughout our country. And in Georgia I am the executive director of the Georgia Trust for Historic Preservation, which is a nonprofit statewide group with 6,500 members.

We have documented approximately $90 million of need for preservation projects in our State alone. Yet, in the last 8 years we have received approximately $500,000 per year from the historic preservation fund. This primarily has served to underwrite the operations of the State historic preservation office. That office, of course, is carrying out federally mandated activities. So, in essence, there are no funds left over for capital projects and capital needs that we see all over the State.

Representative John Lewis from Atlanta has introduced a bill into the House in order to establish a revolving loan fund for the Martin Luther King National Preservation District, and this fund has a cap of $20 million to take care of that particular district. This fund would be made available for the rehabilitation of this very significant national historic area. Yet, it demonstrates that $20 million is the need for just one small historic district in one city in the State.

The National Trust for Historic Preservation has also recommended establishing loan pools throughout the country. Again, these loan pools would be on a very low level in terms of the need. But preservation has shown that it can use Federal funds very effectively; in other words, leveraging a great deal of private money for each Federal dollar invested.

Revolving funds for marketing historic properties are also being looked at by preservation, and this would be to establish a pool of money that could be used and reused over time in order to acquire and then resell historic endangered properties. This would allow an endangered properties fund, if you will, to be established throughout our country. Again, this is a capital need which is needed. Once it is established, it would keep on going on its own.

Nonprofit museums have also suffered greatly in the last decade because funding is not at all available to them. This is an area that has been left out of the picture, and again some of our most significant properties owned by nonprofits are affected this way.

The Georgia trust is raising private funds on its own in order to take care some of these needs. But we feel that there is a great need for Federal funding to demonstrate the national commitment to our significant national heritage as well as to act as a catalyst for additional State and private funding.

Thank you.

Mr. ESTES. Thank you very much, Mr. Paxton.

### PREPARED STATEMENT

Ms. LONGSWORTH. Charlie, we also submitted testimony earlier, and it should be a matter of record.

Mr. ESTES. That will be included in the record.

Ms. LONGSWORTH. Thank you.

[The statement follows:]

## STATEMENT OF NELLIE L. LONGSWORTH

I am Nellie L. Longsworth, President of Preservation Action, the national citizens' lobby for historic preservation issues. Preservation Action represents the growing constituency of Americans who believe that historic preservation - in all its manifestations - is a political issue that needs thoughtful attention from elected officials and legislators at all levels of government. We want to share with you our conviction that federal appropriation to the Historic Preservation Fund in F/Y 1989 continues to be an efficient and worthy use of taxpayers dollars, even during this period of federal spending reduction.

I have been involved in the preservation movement since 1975 and am greatly appreciative of the significant support Congress has rendered on behalf of the conservation of our heritage resources. However, the battle to save buildings, districts and sites does not seem to have abated during these 13 years, in fact, it seems to be accelerating and to be getting "dirtier".

- * Waterford, VA, a glorious national historic landmark, is battling an opportunistic developer with a design of large new houses that will permanently scar a natural and historical jewel.
- * The proposed regional shopping mall - of gigantic proportion - to abut the Manassas Battlefield National Park is a thoughtless commercialization of the history and landscape of the Civil War.
- * In the shadow of the Capitol, a bill introduced in the Senate - S 1934 - would exempt the construction of a new judiciary annex next to Union Station from all DC law and all laws enacted by Congress, including the law that has controlled the building height since 1910.

There are others: Cleveland Park, St. Bart's, Annex 3, the Hotel Utah, Thunderbird, Sandy Point, and Ellis Island to name a few. The phone rings daily at Preservation Action with our members describing details of yet another crisis where developers argue the short term "economic fix" as the justification for the demolition of another piece of our nation's natural, architectural, historical or cultural heritage. I should add that such problems are not limited to one section of our nation, or to towns or cities of a particular size.

The opponents in these battles have powerful financial and political backing and we cannot begin to compete on a dollar for dollar basis. However, we do have a powerful tool in the body of preservation law in the U S Code. The law sets in motion the intergovernmental partnership - federal/state/local - to carry out the policy for historic preservation in our nation. The emphasis on survey, inventory, and designation of those buildings, sites, districts, and objects of merit has been carried out in a uniform and professional manner by the states and local governments under the guidance of the national partner, the National Park Service.

An important result of the partnership is the movement toward comprehensive planning for local jurisdictions with recognized historic components. Where such plans has been implemented, sanity is brought to the "battle of the bulldozer". While partnerships, plans and criteria are not as sexy as the glossy, highly financed hype for "the largest regional shopping mall in all of northern Virginia", they give credibility to a long-term approach to growth and development. Preservation has been served well by the development of criteria, procedures, guidelines, and experience. The smooth operation of the program brings mitigation to problem site, not the costly delays of the courtroom. Our goal as preservationists is to convince local elected officials - in fact to convince all public officials - that the architecture, planning, craftsmanship and traditions of another decade or century can teach us valuable lessons as to how a community will work best in the future. "Old buildings" do not deserve demolition at the hands of development that is motivated only by short term personal aggrandizement.

## FUNDING TO THE STATE PROGRAMS

The appropriation of federal dollars to the federal/state/local government partnership insures the advancement of a system of historic resource preservation that is professional, fair, consistent throughout the nation, and readily available to all citizens. Your appropriation at this time is absolutely necessary to allow the completion of the inventory, to research and circulate technical information with the latest advances in the preservation of the resource, and to advance all public agencies in the utilization, maintenance, and mitigation of conflict for historic resources within their jurisdiction. The need for uniformity between state historic preservation office programs is fulfilled through ties to the National Park Service that regulate but allow states to be independent in their ability to respond to their own state history and reserve of unique resources. We cannot let this successful partnership break down for lack of federal support or preservation battles will move to the courts, a situation that benefits no one.

Appropriated dollars to the state preservation program through the Historic Preservation Fund leverage more than double their value in matching funds and also in the efficiency of reusing our existing building stock and infrastructure and in the avoiding of mistakes that scar communities forever. The program would benefit greatly from an increase above the @$20 million appropriation level of the past 7 years, which with the match from the states, would strengthen the participation of local governments. $20 million - divided up between the 57 states and territories totals @$350,000 per entity, which must be matched. Every additional million in federal appropriation sends another @$15,000 to each state, to be matched, infusing the program's capability rather dramatically. It is an example of a cost efficient program when we can extol the power of $15,000 to a total state program in a high rolling battle with an opposition that views $15,000 as pin money.

But, there are more than "partnership" dollars needed for the program. Every town and city has buildings that need financial assistance; many historic ships are rotting in the water for lack of money; barns, bridges, carrousels, churches, courthouses, landscapes, and archeological sites are struggling to survive. Many lack funds to even ascertain the short-term and long-term costs of restoration and maintenance, a need that was taken seriously by the Congress last year with the inclusion of $2 million for predevelopment grants. (This initiative is greatly appreciated by the preservation community.)

Preservation Action would like to see the Congress take an aggressive approach to the need for funding significant historic properties. Direct grants are desperately needed. Many local non-profit preservation groups have suggested the desirability of using federal funds to seed restoration revolving funds, many of which have already been established and operated by the states. The competitive system is in place and the monies would be paid back to the fund, adding a recapture program element that "reuses" even the dollars in the program. The National Trust has put another interesting funding loan pool program before you that has great potential for communities of all sizes. PRESERVATION ACTION WOULD LIKE TO WORK CLOSELY WITH THE COMMITTEE IN FINDING THE MOST EFFECTIVE MEANS OF FUNDING "REAL" PRESERVATION ON A LONG-TERM BASIS, WITH THE ESTABLISHMENT OF A PROGRAM THAT WOULD MERIT SUPPORT FROM BOTH THE CONGRESS AND ADMINISTRATION.

## FUNDING FOR THE NATIONAL TRUST

The private partner recipient of Historic Preservation Fund dollars is of course, the National Trust. The Trust is extremely effective in sensing the needs of the private preservation constituency, responding with such important programs as Main Street, the Critical Issues Fund, the Inner-City Venture Fund, rural and maritime initiatives, as well as the creative stewardship of its own very significant properties. This year, the Committee should look with interest on the Trust's $7.7 million request and should give special attention to initiatives in maritime programs, preservation services, and the initiation of a private capital revolving fund, an idea that may be a breakthrough as a mechanism to attract corporate funding support for capital preservation needs. Federal dollars expended in this manner offer the broadest possible leverage and return on the taxpayer's dollar, a creative way of bringing public and private interests together.

FUNDING FOR THE NATIONAL PARK SERVICE, ADVISORY COUNCIL ON HISTORIC PRESERVATION AND US/ICOMOS

Preservation Action further supports adequate funding for cultural preservation programs within the National Park Service, the Advisory Council on Historic Preservation,US/ICOMOS (our very important international link with the world preservation community) and archeology and history programs.

We hope that your committee is duly aware that the need is critical throughout the nation and that $150 million, as authorized, would be capably spend by the partnership already in place. Preservation Action testified before the House Interior Committee to these same points and was pleased that the recommendation to the Budget Committee was in the amount of $45 million for appropriation to the F/Y89 the Historic Preservation Fund (an increase of $18 million over the request of a year ago): $6.6 million for the National Trust and $38.4 million for the States. We well remember the Senate vote for an appropriation level of $34.05 million for the HPF in 1988, an effort supported by a bipartisan majority of the full appropriations committee, and an effort greatly appreciated by the preservation community.

Like other environmental programs, preservationists face daily challenges that, left unbattled, will do irreparable harm to our communities and the historic resources within. Through good law and program support, we are developing a partnership that can respond to the challenge and buy the time to gain popular support for our effort within city councils and state legislatures, as well as in the Congress. Your appropriation will insure the advancement of historic preservation of all fronts: expansion of the federal/state/local partnership, support of the National Trust's vital contributions to the private sector, and the development of the most cost-efficient use of the federal dollar to insure that the significant historic structures and sites will ge a part of their communities for generations to come.

## STATEMENT OF ROBERT HILLMAN, CHIEF INVESTIGATOR, ANIMAL PROTECTION INSTITUTE

Mr. ESTES. The subcommittee's next witness is Mr. Robert Hillman.

Mr. HILLMAN. Mr. Chairman, my name is Bob Hillman, chief investigator of the Animal Protection Institute. I am present on behalf of our national membership of 180,000 strong. I am here today to ask that Congress call a halt to wild horse roundups until the several thousand unadopted horses currently held in feedlots are dispersed.

I saw my first wild horse roundup when I was about 12 years old, and since then I have recently witnessed many, many more BLM roundup, and every time a wild horse is removed, it means the American public is losing something of this heritage species.

A surprisingly large section of the public has determined not to stand speechless in the face of a preservation and protection program which, through stages, turned first into a capture program, then into a program for allowing profiteering with wild horses. In the past 3 years we have seen particular ranchers set up to make tens of thousands of dollars from acquiring wild horses from the Federal roundups. We anticipate that hundreds of these horses will have to be reclaimed and added to the thousands already held.

Even in the face of these numbers, BLM intends to take over 3,000 more off the land this summer and another 12,000 next year. As long as they keep adding horses, the problem of the unadoptables will never be solved.

API and other humane groups could help empty this bucket by helping to promote the adoption program if only BLM would turn off the faucet.

I am here to request that funds for roundups be prohibited not only until these unadoptables find homes, but also to ask that Congress declare a moratorium on roundups before this summer's removals begin July 1.

Over the past 3 years Congress has provided the funds for roundups. Therefore, BLM calls it a mandate from Congress, saying that they must reduce the wild horse population to the levels set in their land use plans.

However, our complaint is not only the removal of horses. Since 1982 the amount of wild horse habitat has been reduced by over 4 million acres. The number of herd use areas under BLM has been reduced from 303 to less than 250. The U.S. Forest Service has eliminated several areas and completely emptied several others.

We question the authority for this reduction of habitat area when the law specifies horses and burros be protected in those areas where they were found in 1971. We ask Congress to inquire exactly which areas were emptied or eliminated and the reasons for doing so.

In fact, if you look at the attached tables that have been submitted which have been taken from BLM's official reports to Congress, you will note a confusion of numbers in need of explaining. We believe some of the unadoptables should be relocated back into those emptied areas.

The wild horse protection program is being implemented as a pest control service for ranchers, as if the 1971 act meant the Government instead of the mustanger was to control the number of horses in the livestock grazing allotments. The protections granted to wild horses in the act precluded a future administration from arbitrarily declaring that an overpopulation exists.

When the 1971 act was amended by PRIA, criteria were added on to how and when the Secretary was to determine if an overpopulation exists in a given area and the determination of excess was added to the law.

A 1985 court ruling, *Dahl* v. *Clark*, included the bench test on when removals are allowed. It says removals are to achieve a thriving ecological balance of the natural system. There is no such remedial consequence from the current removals.

To save the land, to protect the watershed, the riparian habitat, to assure biological diversity, to prevent soil erosion, it would make much more sense for Congress to pay the permittee to house his cattle in feedlots than to remove the wild horses from the land over to the feedlots.

The impact of horses on the natural system is minimal, while the impact of cattle is devastating. The No. 1 problem in nearly every grazing allotment is unequal cattle distribution. It is the nature of cattle to congregate near water sources and to graze the valleys and the low benchlands. Is it the nature of horses to seek the ridges, to live in small bands that space themselves to each other and to available forage, and to move while grazing.

Appropriate management levels consider none of these. BLM does not have a sound range protection program because the grazing laws grant exclusive rights and privileges to livestock. They do not have a sound wild horse management program but, instead, have a reduction program to assure that cattle stocking rates are not reduced.

Few, if any, herd management plans have been written. Many are due in 1988 and 1989. At the same time, range monitoring data will be ready for evaluation. This data will provide BLM managers with the information for establishing optimum numbers of horses in each area.

But this administration's goal is to first reduce populations, then write the management plans, and only then implement range data and implement range data and utilization patterns.

So, we ask this committee to call a moratorium on the roundups, first to stop the addition of wild horses to the current feedlot crisis, and second, to direct the Secretary to reevaluate what are optimum numbers based on monitoring data as AML before making further reductions, and then to write the management plans.

In order to assure wild horses equal consideration under multiple use, we ask that Congress direct the BLM to make forage allocation to those reestablished AMLs.

Also, there has never been an environmental assessment of management actions on wild horses from the time they leave the processing center to entitlement. Neither the feedlots nor the fee waiver adoptions were ever subjected to public comment. Had they been, we would not be here today faced with the problem of several thousand unadoptable horses.

We have every reason to believe that the failure to environmentally assess this decision was intentional in order to set the stage for sale authority; if not sale authority, then some other convenient mechanism that will erode statutory deterrence to massive removals.

We oppose the creation of a sanctuary situation that only provides BLM with an expedient outlet for unadoptable horses. Both sale authority and convenient sanctuaries erode the protections granted to wild horses and eliminate the deterrence to removal. If the intent of the law were implemented, the arbitrary declaration of an overpopulation, the massive reductions to minimum numbers, and the bogus adoption scheme of the current administration would not exist.

We believe it is imperative that the current feedlot victim be addressed as an exceptional case and that measures taken to disperse them or house them in free-roaming environments be separated from ongoing policies, and that solutions to this crisis do not create avenues for future large-scale roundups.

### PREPARED STATEMENT

I thank you for your time and I would be happy to answer any questions.

Mr. Estes. Thank you, Mr. Hillman. The subcommittee has no questions.

[The statement follows:]

## STATEMENT OF ROBERT HILLMAN

Mr. Chairman, Honorable Senators: My name is Bob Hillman, chief investigator of the Animal Protection Institute and present on behalf of our national membership of 180,000.

I'm here to ask that Congress call a halt to wild horse roundups until the several thousand unadopted horses currently held in feedlots are dispersed. I saw my first wild horse roundup when I was twelve years old. I've recently witnessed many more BLM roundups,and every time a wild horse is removed, it means the American public is losing something of this heritage species.

A surprisingly large section of the public has determined not to stand speechless in the face of a preservation and protection program which through stages turned first into a capture program, then into a program for allowing profiteering with wild horses. In the past three years we have seen particular ranchers set up to make tens of thousands of dollars from acquiring wild horses from the federal roundups. We anticipate that hundreds of these placements will have to be reclaimed and added to the thousands already held. Even in the face of these numbers, BLM intends to take over 3,000 more off the land this Summer and another 12,000 next year. As long as they keep adding horses, the problem of the unadoptables will never be solved. API and other humane groups could help empty the bucket by helping to promote the adoption program if only BLM would turn off the faucet.

I'm here to request that funds for roundups be prohibited until these unadoptables find homes but also to ask that Congress declare a moratorium on roundups before this summer's removals begin July 1.

Over the past three years Congress has provided the funds for roundups. Therefore BLM calls it a mandate from Congress saying they must reduce the wild horse population to the levels set in their land use plans.

While we believe this committee can and should make determinations on program funding, we question if the intent of Congress was really to underwrite the kinds of reductions this Administration has made over the past three or four years--particularly when the House twice voted to prohibit funds for roundups. It's hard to believe the funding was achieved by the Continuing Resolution in the face of an overwhelming public outcry with tens of thousands opposing the original funds.

Our complaint is not only the removal of horses. Since 1982, the amount of wild horse habitat has been reduced by over 4 million acres. The number of herd use areas under BLM has been reduced from 303 to under 250. Forest Service has eliminated several areas and emptied several others. We question the authority for this reduction of habitat area when the law specifies horses and burros be protected in those areas where they were found in 1971. We ask Congress to inquire exactly which areas were emptied or eliminated and the reasons for doing so. In fact, if you look at the attached tables taken from official reports to Congress you will note a confusion of numbers in need of explaining. We believe some of the unadoptables should be relocated back into these emptied areas.

Our experience is that the appropriate management levels set in the land use plans are the result of the Coordinated Resource Management Planning Committees--called CRIMP committees. These came together at the local level, made up mostly of permittees, to list objectives for range improvements for livestock grazing. Many of these committees have long since disbanded, some didn't even stay around long enough to sign the agreements, many of the objectives listed have not been carried out. But in nearly every case the one objective pursued has been the reduction of horses to the levels they agreed upon. These levels were not arrived at by evaluating the needs of horses such as population dynamics and habitat needs. Even where grazing Environmental Impact Statements warned that a reduction of over 50 percent was a negative impact on wild horse populations, it was considered simply a guideline and not a protection of a valuable public land resource.

The wild horse protection program is implemented as a pest control service for ranchers as if the 1971 Act meant the government, instead of the mustanger, was to control the number of horses in the livestock grazing allotments.

The protections granted to wild horses in the Act precluded a future Administration from arbitrarily declaring that an overpopulation exists. When the 1971 Act was amended by PRIA, criteria were added to how and when the Secretary was to determine if an overpopulation exists in a given area and the definition of excess was added to the law. A 1985 court ruling (Dahl v. Clark) included a benchtest on when removals are allowed, it says removals are to achieve a thriving ecological balance of the natural system.

There is no such remedial consequence from the current removals. To save the land, to protect the watershed and riparian habitat, to assure biological diversity, to prevent soil erosion it would make more sense for Congress to pay the permittee to house cattle in feedlots than remove wild horses from the land. The impact of horses on the natural system is minimal while the impact of cattle is devastating. The number one problem in nearly every grazing allotment is uneven cattle distribution. It is the nature of cattle to congregate near water sources and to graze the valleys and low benchlands. It is the nature of horses to seek the ridges, to live in small bands that space themselves to each other and to available forage, and to move while grazing. Appropriate management levels consider none of this.

BLM does not have a sound range protection program because the grazing laws grant exclusive rights and privilege to livestock. They do not have a sound wild horse management program but instead have a reduction program to assure that cattle stocking rates are not reduced.

Few if any Herd Management Plans have been written. Many are due in 1988 and 1989. At the same time range monitoring data will be ready for evaluation. These data will provide BLM managers with the information for establishing optimum numbers of horses in each area. But this Administration's goal is to first reduce populations then write the management plans and only then implement range data and utilization patterns.

And so, we ask this committee to call a moratorium on roundups. First to stop the addition of wild horses to the current feedlot crisis; and second, to direct the Secretary to re-evaluate what are optimum numbers based on monitoring data as AML before making further reductions and then to write the Management Plans. In order to assure wild horses equal consideration under multiple use, we ask that Congress Direct the BLM to make forage allocations to those re-established AMLs.

Also, there has never been an environmental assessment of management actions on wild horses from the time they leave the processing center to entitlement. Neither the feedlots nor the fee waiver adoptions were ever subjected to public comment. Had they been we would not be here today faced with the problem of several thousand unadoptable horses. We have every reason to believe the failure to environmentally assess this decision was intentional in order to set the stage for sale authority. If not sale authority then some other convenient mechanism that will erode statutory deterrents to massive removals.

We oppose the creation of a sanctuary situation that only provides BLM with an expedient outlet for unadoptable horses. Both sale authority and convenient sanctuaries erode the protections granted to wild horses and eliminate the deterrents to removals. If the intent of the law were implemented the arbitrary declaration of an overpopulation, the massive reductions to minimum numbers, and the bogus adoption scheme of the current Administration would not exist.

We believe it is imperative that the current feedlot victims be addressed as an exceptional case and that measures taken to disperse them or house them in free roaming environments be separated from ongoing policies. And that solutions for this crisis do not create avenues for future large scale roundups.

I thank you Senators for your attention and patience and would be most happy to answer any questions you have.

## 1984 REPORT TO CONGRESS

### Table A - Estimated Wild Horse and Burro Distribution in 1971

| | Forest Service[1] | | Bureau of Land Management | |
|---|---|---|---|---|
| State | Territories | Acres | Herd Areas | Acres |
| Arizona | 3 | 42,964 | 11 | 2,815,000 |
| California | 11 (9) | 466,999 | 39 | 6,608,700 |
| Colorado | 0 | - | 6 | 844,970 |
| Idaho | 2 | 4,880 | 8 | 460,740 |
| Montana | 1 | 3,350 | 7 | 151,764 |
| Nevada | 19 (18) | 1,122,590 | 132 | 20,074,861 |
| New Mexico | 9 | 142,434 | 4 | 134,310 |
| Oregon | 2 | 100,660 | 33 | 3,819,157 |
| Utah | 3 | 44,685 | 28 | 4,227,735 |
| Wyoming | 1 (0) | 5,700 (0) | 35 | 8,358,642 |
| Totals | 51 (47) | 1,934,262<br>(1,928,562) | 303 | 47,495,879 |

* * *

## 1986 REPORT TO CONGRESS

| | Forest Service | | Bureau of Land Management | |
|---|---|---|---|---|
| State | Territories | Acres | Herd Areas | Acres |
| Arizona | 3 | 42,964 | 11 | 2,011,000 |
| California | 9 | 431,189 | 35 | 4,479,622 |
| Colorado | 0 | 0 | 6 | 637,514 |
| Idaho | 1 | 4,246 | 7 | 424,150 |
| Montana | 1 | 3,350 | 2 | 44,813 |
| Nevada | 18 | 1,250,421 | 120 | 18,394,838 |
| New Mexico | 9 | 142,434 | 2 | 44,238 |
| Oregon | 2 | 100,660 | 34 | 3,589,848 |
| Utah | 2 | 40,356 | 28 | 2,095,502 |
| Wyoming | 0 | 0 | 12 | 3,181,703 |
| Totals | 45 | 2,015,620 | 257 | 34,903,228[2] |

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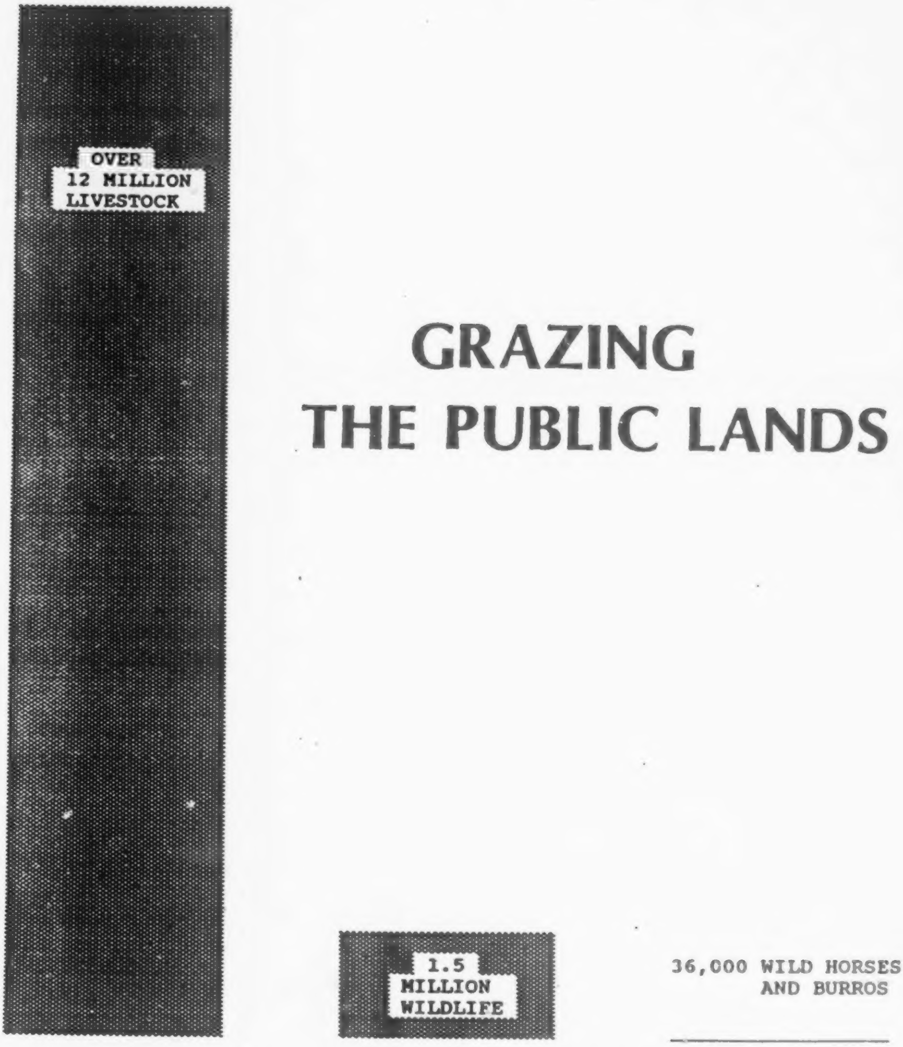
[1] Numbers shown in parentheses reflect distribution and acreage as of September 30, 1983. The FS has 47 territories containing 1,928,562 acres. The changes are the result of declassification of one territory (Wyoming) due to absence of animals, and consolidation of six territories into three, where territories overlapped forest or regional boundaries.

[2] An additional 7 million acres of land not under the jurisdiction of BLM (either privately owned or administered by other government agencies) are intermingled with public lands within the BLM herd areas and comprise part of the habitat for wild horses and burros.

# GRAZING THE PUBLIC LANDS



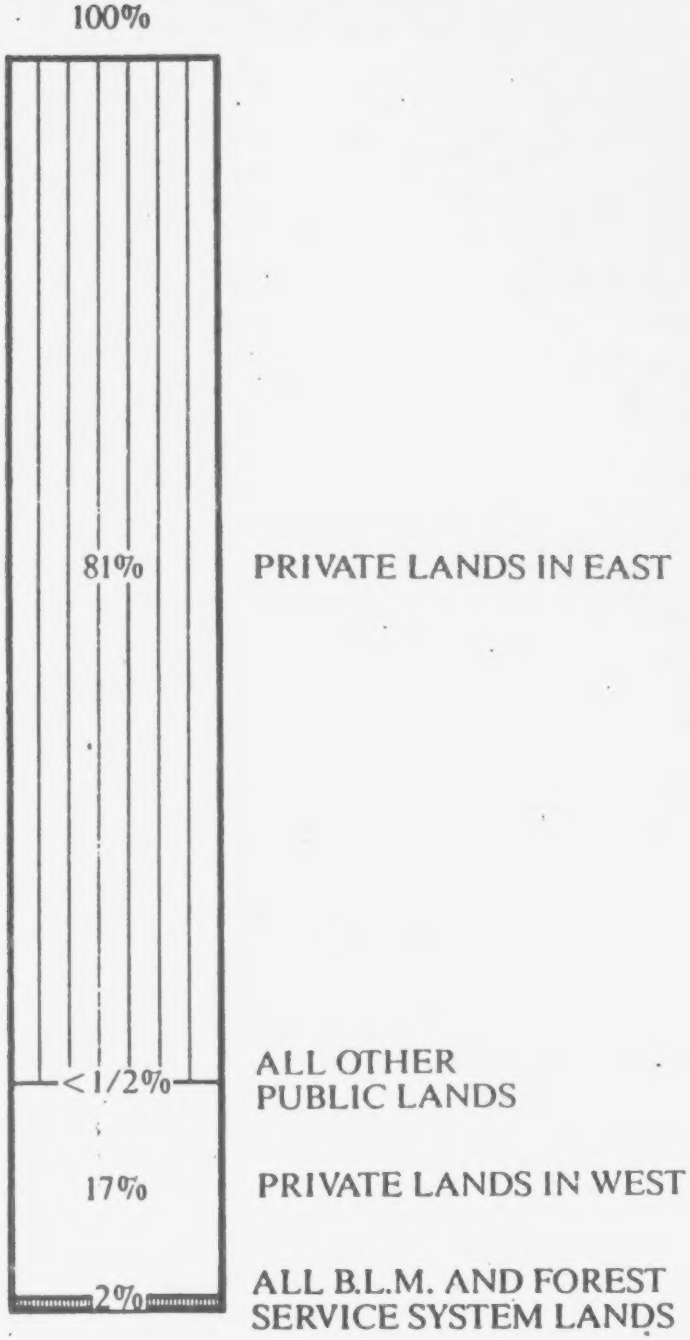
IF THE NUMBER OF LIVESTOCK REPRESENTED A TWENTY STORY BUILDING, THE WILD HORSES WOULD BARELY REACH THE DOORMAT, IN COMPARISON.

# WESTERN FEDERAL LANDS

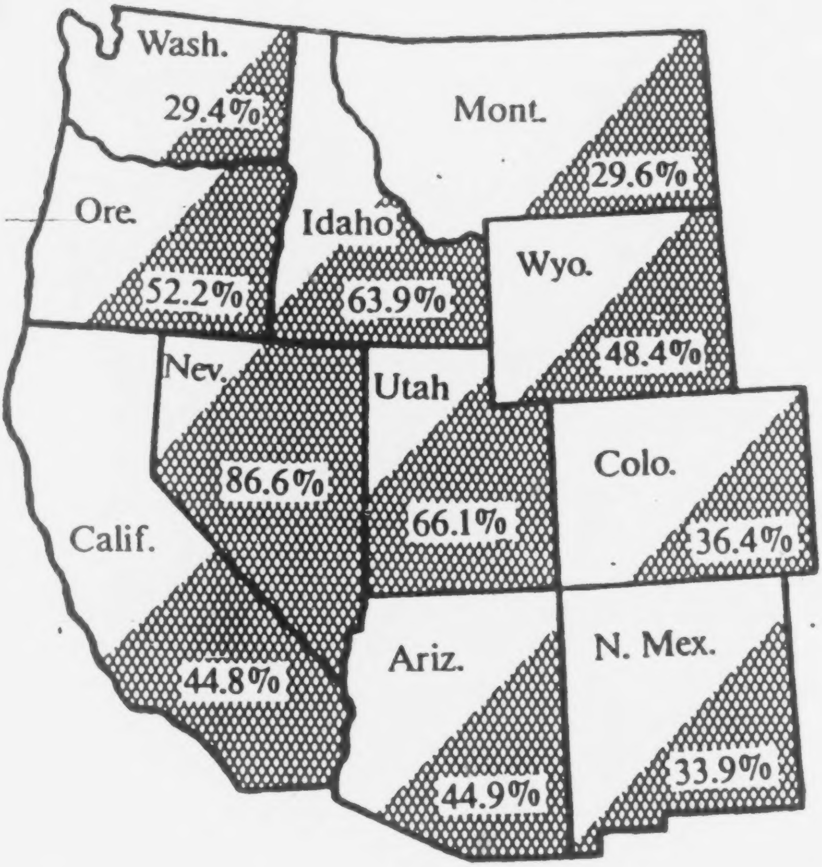
| STATE ........ | PERCENTAGE OF STATE LAND UNDER FEDERAL CONTROL |
|---|---|
| WASHINGTON | 29.4% |
| OREGON | 52.2% |
| CALIFORNIA | 44.8% |
| NEVADA | 86.6% |
| IDAHO | 63.9% |
| UTAH | 66.1% |
| MONTANA | 29.6% |
| WYOMING | 48.4% |
| COLORADO | 36.4% |
| ARIZONA | 44.9% |
| NEW MEXICO | 33.9% |

**70%**
**GRAZED BY LIVESTOCK**

- 40% of public grazing is controlled by only 3% of the stockmen.
- Seven out of every 10 acres is behind barbed wire fences with cattle and/or sheep on them. The total includes dense forests and brushlands, the driest deserts, sand dunes, dry lake beds and salt flats, lava flows and cinder cones, cliffs and mountain tops, cities and towns, roads and parking areas, airports, golf courses, your back yards, and every other place that cannot be grazed. In other words, almost every place that can be grazed, is grazed.
- 43% of all the west is public grazing lands and they produce only 2% of the total amount of red meat in the United States.



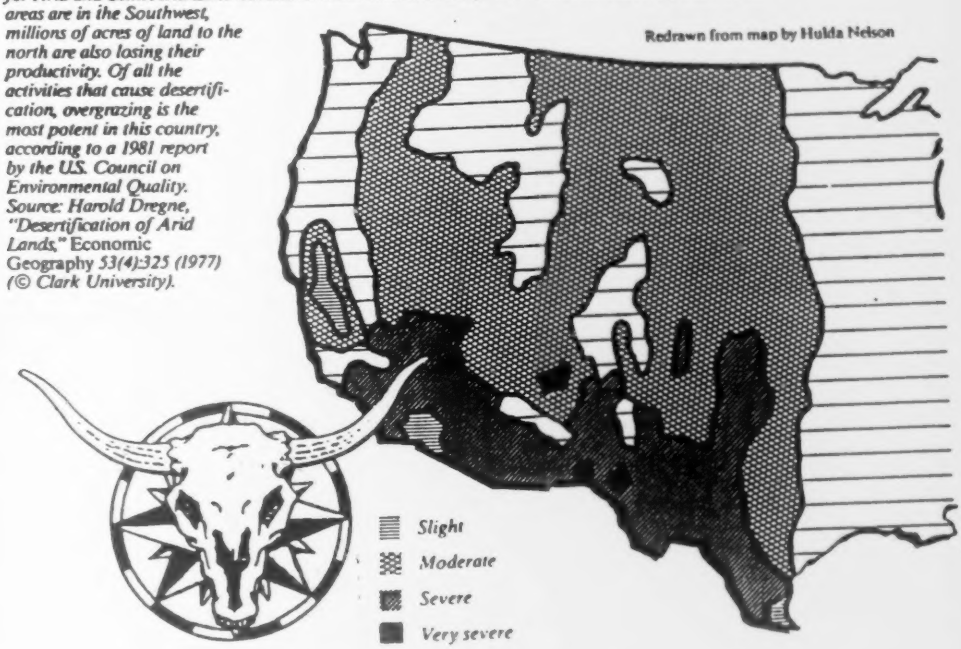
**LIVESTOCK FEED PRODUCTION IN U.S.**

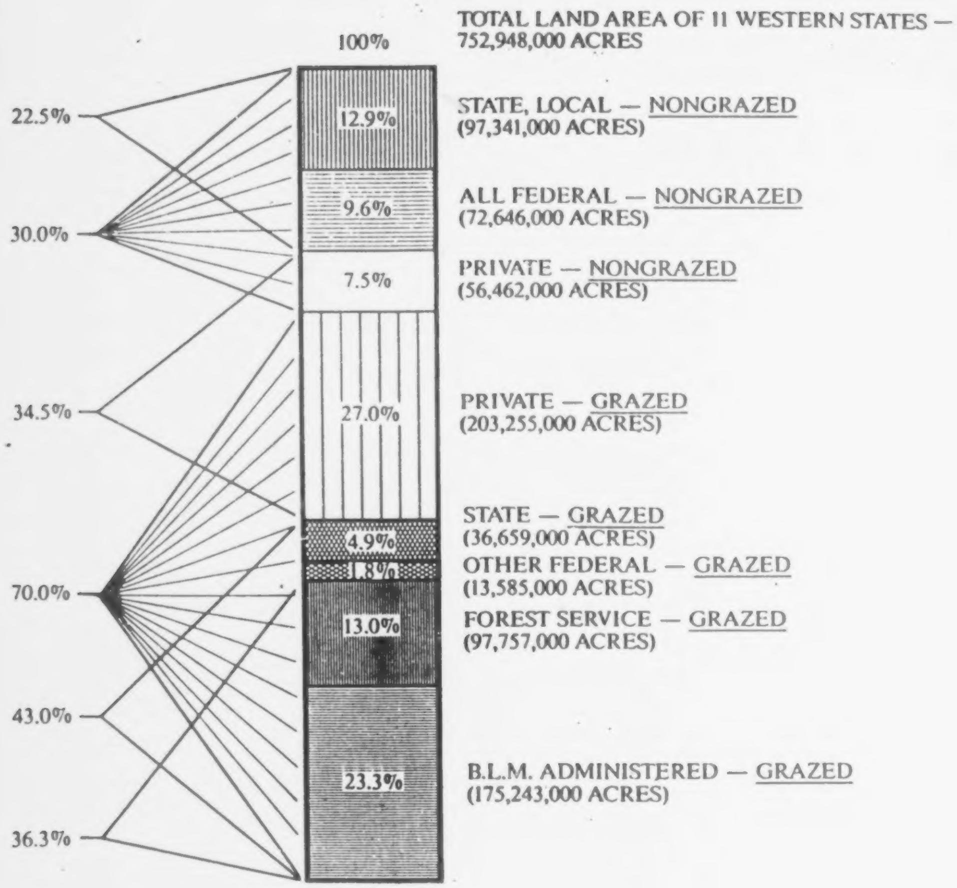

Wash.
29.4%
Mont.
29.6%
Ore.
52.2%
Idaho
63.9%
Wyo.
48.4%
Nev.
86.6%
Utah
66.1%
Colo.
36.4%
Calif.
44.8%
Ariz.
44.9%
N. Mex.
33.9%

*Proportion of land in 11 western states owned by federal government (does not include state, county, and city lands). 80% of this federal land and 72% of most of the balance — private land — is currently grazed by livestock.*

## The Status of Desertification in the United States

*Overgrazing has helped put about 10 percent of the land in the United States, all in the West, in a state of severe or very severe desertification, according to Harold Dregne, head of the International Center for Arid and Semi-Arid Land Studies at Texas Tech University. While the most severely desertified areas are in the Southwest, millions of acres of land to the north are also losing their productivity. Of all the activities that cause desertification, overgrazing is the most potent in this country, according to a 1981 report by the U.S. Council on Environmental Quality. Source: Harold Dregne, "Desertification of Arid Lands,"* Economic Geography *53(4):325 (1977) (© Clark University).*


Redrawn from map by Hulda Nelson



GRAZED AND UNGRAZED LANDS IN WEST

Mr. ESTES. Our next witness will be Dr. Lawrence John.

[No response.]

Mr. ESTES. Dr. John is not here.

All right. We will move on.

The subcommittee's last witness, then, will be Mr. Dewey Schwalenberg.

Mr. Schwalenberg.

## STATEMENT OF DEWEY SCHWALENBERG, EXECUTIVE DIRECTOR, NATIVE AMERICAN FISH & WILDLIFE SOCIETY

Mr. SCHWALENBERG. I am Dewey Schwalenberg. I am the executive director of the Native American Fish & Wildlife Society. I thank you for the opportunity to testify here today.

The Native American Fish & Wildlife Society is an organization made up of tribal professional fish and wildlife managers, biologists, conservational law enforcement people. And we, in the past 6 years, have put together an organization that we feel represents the true tribal interest in development of its fish and wildlife management programs.

The tribes have been missing one link in the national management of its resource, and that link has been the national office that would represent the tribal interests in the policy and decisionmaking process that goes on in the country.

What has been missing up until this point has been direct tribal involvement in the decisionmaking process and working cooperative with a national organization such as the International Association of Fish and Wildlife Agencies, the American Fisheries Society, Wildlife Society, and a like number of other organizations.

Over the past 8 months of having that national office, we have, in fact, been in contact with these organizations and have found that there are quite a few similarities in the management desires of the tribes as well as these organizations. Not having adequate representation that the tribes wish to have through the Department of the Interior, has led to quite a few problems in the past. One problem, as an example, is the Department of the Interior has been asking the International Association of Fish and Wildlife Agencies to determine what the—the amount of resources on the reservations and the ability of tribes to regulate and manage those resources. The tribes that we represent certainly feel that it is a tribal responsibility to illustrate the resources and the management capabilities that are available, and we simply feel that the society is the perfect vehicle for moving this information into the national level.

We have put together a communications task force that will be in effect beginning in July, and it is made up of the four official wildlife commissions, tribal commissions around the country, and the society national office, through an exchange of information, both up to the national non-Indian organizations as well as professional technical information back down to the individual tribes, we hope to further the management initiative of wildlife resources.

We must keep in mind that there are approximately 160 tribes that have a fish and wildlife management program, and there's over 200 tribes out there that don't have a program as of yet.

The Federal resources simply are not available. So we need to come up with alternative funding mechanisms for helping these tribes manage those resources. One of the things we are discussing right now is tribal involvement in the funding mechanisms, and because of similar management projects and requirements that tribes have and similar historical facts to the State activities, we find a lot of people are interested in national organizations in supporting the tribes in these types of efforts.

We find also that the moneys that will become available must be used for the management and enhancement of wildlife and fish habitats.

All in all, we feel that our society represents the missing link that the tribes have been sorely in need of for many years, and our 6 years' experience with the various tribes across the country, and actually the society being made up of the grassroots managers of those resources will provide the opportunities to allow the tribes to be much more successful in managing their own resources and obtaining self-determination goals and objectives that the tribes are working to try to secure.

## PREPARED STATEMENT

So we have a number of other things that we have included in our testimony already. We would be very happy to answer any questions that you have. That concludes my remarks.

Mr. ESTES. Thank you, Mr. Schwalenberg.

[The statement follows:]

## STATEMENT OF DEWEY SCHWALENBERG

Thank you for allowing us the opportunity to testify before you today. I am Dewey Schwalenberg, Executive Director and representative of the Native American Fish & Wildlife Society.

The Native American Fish & Wildlife Society, a non-profit corporation, currently represents nearly 300 members, including individual Indian people, Indian Tribes, Indian organizations, and non-Indian individuals and organizations supportive of Tribal fish and wildlife development. All members share the common goal of protecting Tribal sovereignty in the management and use of its fish and wildlife resources.

The Society represents a wealth of experience and information about management of fish and wildlife resources on Indian lands. Its members are the institutionalized experts on Tribal fish and wildlife management on Tribal lands because they manage and operate the Tribal programs. This information and experience also represents a potential for change in the way the Tribes, federal agencies, states, and the academic community have traditionally interacted in the past. With an organized exchange of this experience and information, Tribes will have the means to control their resources and will be able to assist in reducing non-productive use activities within treaty protected areas.

The Native American Fish & Wildlife Society is developing an organized structure to assist in documentation of Tribal fish and wildlife management efforts within the Tribe's jurisdiction. Such documentation includes the management strategies and techniques currently being used so successfully by the Tribes. Documentation will be provided through publication of a Quarterly Newsletter, Semi-Annual Technical Bulletin, and an Annual Journal of Tribal Fish and Wildlife Management.

The Society is developing the means to provide technical assistance to Tribal organizations who are in the process of setting up fish, wildlife, and recreation programs or who need professional fish and wildlife assistance for legal, management, or legislative purposes. The Society will also be in a position to assist in the establishment of historical or jurisdictional technical assistance for litigation purposes, if the need arises. There is no cost to member Tribal organizations for these services.

The Society's primary job is to work on national issues related to Tribal fish and wildlife program development. Activities supporting the increase of funding of Tribal fish and wildlife projects through the federal appropriations process, through legislative amendments and/or the streamlining of fund movement to the Tribes through the federal system will receive our immediate attention. Support of the Tribal rights and abilities to perform management functions will be provided through use of the previously described documentation and publication process once adequate funding is received. Such publications will open lines of communication on issues that have not been previously discussed. Beyond that, the Society will support the Tribes as sovereign entities, in the responsible management of their fish and wildlife resources and will assist in the development of sound programs to accomplish Tribal objectives.

The Native American Fish & Wildlife Society is concerned that national fisheries, wildlife, and recreation issues that affect the Tribes are not adequately addressing the Tribes' desire for direct participation in the process.

A number of key issues are currently being addressed nationwide that should have active involvement by Tribes through a national organization representative of their interests. Foremost among these issues is the Reauthorization of the SPORTS FISHING and WILDLIFE ENHANCEMENT ACTS

(Dingell-Johnson/Pittman-Robertson), wherein the Tribes are being excluded from participating in this funding opportunity although Tribes provide management services to the fish and wildlife resources of over 50 million acres of Tribal lands. These same lands and resources offer millions of person/days of hunting, fishing, and recreational usage by Indians and non-Indians alike. Factual information coordination between Tribes and non-Indian public and organizations needs to be developed to create an understanding of the inequity that exists. Such an exchange would allow for an equitable solution to be developed between Tribes and key agencies and organizations concerned about this situation. Currently, the Department of Interior (Bureau of Indian Affairs and the U.S. Fish & Wildlife Service), the International Association of Fish and Wildlife Agencies (IAFWA), the American Fisheries Society, and The Wildlife Society all have expressed concerns to us about this situation, but Tribal input remains formally unsolicited. Recently, Secretary of the Interior, Donald P. Hodel requested that the IAFWA review the Tribal status relative to Dingell-Johnson/ Pittman-Robertson funding. Such a review should have also been requested from the Tribes themselves as they are the entities that can factually decribe their resource bases and management capabilities. The NAFWS has taken the initiative in coordinating such an inter-Tribal effort, and could work closely with non-Indian entities to produce a meaningful solution to the problem.

Another concern that has recently surfaced involves the development of a NATIONAL RECREATIONAL,FISHERIES POLICY. Although the project narrative description of the method of development of this policy states "The policy represents the collective efforts of State, Tribal, and Federal Governments, etc...." the fact of the matter is that the Tribes themselves have had little, if any, input into the development of this policy, but yet are expected to design their management efforts to support the premises included therein. Here again, the NAFWS feels strongly that it can assure direct input from the Tribes into this and similar policy directives because its members are the professional persons given the responsibility by Tribal Governments for the development of the Tribal programs.

One final concern that the Society wishes to express to the Committee Members involves the use of Tribal resources in the development of socially acceptable employment opportunities and in generation of revenues for Tribal Governments. The NATIONAL AQUACULTURE ACT of 1980 is up for reauthorization this year we are told, and offers some potential to Tribal Governments to maximize their local resources through intensive management of fish and wildlife, thus creating a surplus for marketing purposes. As a Society, we feel strongly that active and intensive management of fish and wildlife resources by the Tribes will provide a reasonable base to develop aquaculture and game farming capabilities upon. The Society, through its education and training programs, is in a position to assist those Tribes who choose to explore their revenue generating opportunities in the areas of fisheries, wildlife, and recreation. Many Tribes already are taking advantage of these opportunities, but are in need of technical support to develop into economically viable programs; others are just beginning this process. Together, the long road of development can be shortened through use of the experience and understanding that the Society represents.

The Native American Fish & Wildlife Society believes that the fish and wildlife resources of the Tribal Governments can best be preserved and protected through a coordinated national effort supported by the Tribes. We feel that we can assist in the technical design and development of these programs. We further believe that our involvement as a vehicle to exchange information and ideas with non-Indian fish and wildlife organizations, in coordination with the Tribes as the decision-making entity, will illustrate a significantly more organized and active Tribal fish and wildlife management capability than has previously been perceived.

We thank you for your consideration of our funding request of $355,000 and would be happy to provide you with any background information that you may require.

## ISSUES OF CONCERN

Bureau of Indian Affairs:

IPS (Indian Priority System) - The removal of funds from specific line items for specific Tribes and projects represents an opportunity for funds to be diverted to other uses. We support the Tribes in asking that line item identification of funds be reinstated.

Dingell-Johnson/Pittman-Robertson Legislative Amendment:

Use of DJ/PR funding by Tribes is being supported by the Native American Fish & Wildlife Society as a means to develop new fish and wildlife programs and as an incentive to increase activities in Tribes with existing programs.

Matching DJ/PR funding with Tribal funds could provide an excellent incentive to Tribes to maintain fish and wildlife management as a high priority.

Cooperative Resource Management:

The Society, through its Articles of Incorporation and Constitution and By-Laws, has assured that cooperative resource management will be developed. In practice, our organization has begun the process of interacting with organizations such as the American Fisheries Society, The Wildlife Society, the International Association of Fish and Wildlife Agencies, the Merchant Marine and Fisheries Committee, the U.S. Fish & Wildlife Service, BIA Office of Trust Responsibility and many more.

## NATIVE AMERICAN FISH & WILDLIFE SOCIETY FY89 PROPOSED BUDGET & BUDGET JUSTIFICATION

The following budget has been prepared for FY1989 to assist in the review process by the Board of Directors prior to our testifying before the House Sub-Committee on Appropriations, Honorable Sid Yates, Chairman. The hearing is tentatively scheduled for February 25, 1988, and we have requested to be included on the agenda. The budget figures have been broadly estimated to provide flexibility in the Board of Director's use of the funds should a FY89 appropriation be obtained.

## FY89 PROPOSED BUDGET

| | |
|---|---|
| Administration | $203,736.88 |
| Public Information/Membership Program | 48,800.00 |
| Educational Services Program | 52,800.00 |
| Technical Services Program | 49,800.00 |
| TOTAL | $355,136.88 |

**The Administrative entity** consists of the Executive Director, the Office Administrator, and the Secretary/Receptionist. The function of this entity is to develop the national headquarters of the Native American Fish & Wildlife Society, administer the service and membership activities, and conduct appropriate business activities to ensure that the Society remains in good standing as a Colorado Corporation and functions within federal funding requirements and IRS 501(c)(3) non-profit guidelines. The administrative entity directly supports the Board of Directors by carrying out directives developed at quarterly meetings and by providing professional input into the development of creative service programs to Tribes and members. Administrative support funding assists in the operation of the three (3) key service programs that the Society wishes to maintain: PUBLIC INFORMATION/ MEMBERSHIP, EDUCATIONAL SERVICES, and TECHNICAL SERVICES. The Administrative portion of the budget is as follows:

**Administration**:

| | |
|---|---|
| Salaries | $82,500.00 |
| Fringe | 11,014.00 |
| Travel & Per Diem (Staff) | 14,800.00 |
| Travel & Per Diem (Board of Directors) | 20,000.00 |
| Telephone | 4,000.00 |
| Office Supplies | 2,800.00 |
| Postage | 1,175.00 |
| Rent - Equipment | 10,691.88 |
| Rent - Office | 15,360.00 |
| Rent - Furniture | 6,450.00 |
| Equipment Purchase | 0.00 |
| Utilities | 1,260.00 |
| Insurance | 4,736.00 |
| Meetings/Conferences Support | 8,000.00 |
| Professional Services | 9,000.00 |
| Printing | 10,250.00 |
| Relocation Expense | 1,000.00 |
| Dues/Subscriptions | 200.00 |
| Audit | 500.00 |
| TOTAL | $203,736.88 |

**The Public Information Office/Membership Program** will develop an up-to-date membership program to keep the Society membership lists current, ensure that timely exchange of information with the members occurs, that all promotional information is disseminated through the proper news media channels, and that professional inquiries are handled through the proper service programs. Services provided by this program include development and dissemination of a Quarterly Newsletter and periodical publication of Technical Bulletins, and a Journal of Tribal Fish and Wildlife Management. Efforts of the program will be coordinated with the Educational and Technical Services Programs. Following is the proposed budget for the Public Information/Membership Program:

| | |
|---|---|
| Salary (Public Information Officer) | $30,000.00 |
| Fringe | 4,005.00 |
| Travel & Per Diem | 9,500.00 |
| Insurance | 1,895.00 |
| Telephone | 1,200.00 |
| Rent - Furniture | 1,000.00 |
| Office Supplies | 1,200.00 |
| TOTAL | $48,800.00 |

**The Educational Services Program** is responsible for the accumulation and dissemination of fish and wildlife related information. The major objective is to establish statistically relevant data concerning the educational needs of the Tribal fish and wildlife programs, the documented educational levels represented in the Tribal programs, a detailed plan to increase educational activities and opportunities to the Tribal programs, and to follow up on a previously developed Regional Adult Vocational Technical Fish and Wildlife Training Center Program. Other objectives will be to establish and maintain a Youth Scholarship Program and a Summer Youth Exchange Work Program. Following is the proposed budget for the Educational Services Program:

| | |
|---|---|
| Salary - Educational Services Manager | $30,000.00 |
| Fringe | 4,005.00 |
| Travel & Per Diem | 9,500.00 |
| Insurance | 1,895.00 |
| Telephone | 1,200.00 |
| Rent - Furniture | 1,000.00 |
| Office Supplies | 1,200.00 |
| Relocation Expense | 1,000.00 |
| Scholarship Fund | 3,000.00 |
| TOTAL | $52,800.00 |

**The Technical Services Program** will work closely with the Tribal members to support the development of Tribal fish and wildlife programs. The two major activities of the program will be (1) to establish the factual data base that identifies the Tribal resource base currently being managed and the level of management being accomplished; and (2) to coordinate technical assistance to various Tribes in support of developing new management capabilities at the Tribal level. Such assistance will be provided by the Technical Services Manager or other members of the Society and will include assisting in the development of proposals to secure funds for specific projects by using the statistical data accumulated. The Technical Services Manager will support the development of an annual request for appropriations on behalf of the member Tribes to the House and Senate Committees on Appropriations. Following is the proposed budget for the Technical Services Program:

| | |
|---|---|
| Salary - Technical Services Manager | $30,000.00 |
| Fringe | 4,005.00 |
| Travel & Per Diem | 9,500.00 |
| Insurance | 1,895.00 |
| Telephone | 1,200.00 |
| Rent - Furniture | 1,000.00 |
| Office Supplies | 1,200.00 |
| Relocation Expense | 1,000.00 |
| TOTAL | $49,800.00 |

## FY89 BUDGET JUSTIFICATION

The Budget Justification for the **Administrative** portion of the budget is as follows:

Salaries: The Executive Director's salary is calculated at $42,500 per annum and the Administrator's salary is calculated at $25,000 per annum. A new position of Secretary/Receptionist will be added, with a salary of $15,000 per annum

Fringe: Calculated at the rate of 13.35% which covers the cost of Federal Unemployment, State Unemployment, Colorado State Workmen's Compensation, and FICA match for three employees.

Travel & Per Diem (Staff): Travel is projected at 15 trips for the Executive Director and two trips for the Administrator. Trips are calculated at $800/trip. Local travel is also added into this line item at a rate of $100/month.

Travel & Per Diem (Board): An estimated cost of one board meeting for ten board members, including air fare, lodging, and meals is $5,000. $5,000 x 4 board meetings equals $20,000.00.

Telephone: Calculated at a rate of $334 per month for long distance and local charges.

Office Supplies: Includes the cost of computer paper, computer address labels, xerox paper, toner and developer for the xerox machine, computer discs, and other miscellaneous office supplies necessary to the general operation of the National Office.

Postage: Includes the cost of mailing four newsletters, one technical bulletin, one mailing to appropriate committees of the House and Senate, one mailing to all Tribes and Tribal Organizations, and the cost of sending out daily mail.

Rent - Equipment: Calculated as follows on a monthly basis:

| | |
|---|---|
| Xerox Machine | $270.97 |
| Typewriter | 40.44 |
| Telephone Equipment | 79.58 |
| Computer | 500.00 |
| TOTAL | $890.99 x 12 months = $10,691.88 |

Rent - Office: Calculated at the monthly rate of $1,280.00.

Rent - Furniture: Calculated at the rate of $537.50/month. This will cover the cost of furnishing the National Office including the reception area and the conference room.

Utilities: Covers the cost of gas and electricity, estimated at $105/month.

Insurance: Covers the cost of liability insurance for the building contents, bonding insurance for the Society staff and two Board Officers, as well as health/dental and life insurance for the staff and disability insurance for the Executive Director.

Meetings/Conference Support: This line item is included to provide financial assistance for six regional meetings at $1,000 per meeting, and $2,000 for the national conference.

Professional Services: Covers the cost of accounting services and data collection and reserach information services.

Printing: This line item is for the cost of printing four newsletters, one technical bulletin, business cards, and additional membership brochures.

Relocation Expense: Provides $1,000 to cover the expense of moving to new employees, in the event they must relocate to accept a position with the Native American Fish & Wildlife Society.

Dues/Subscriptions: Covers the cost of professional memberships for the Society, such as the American Fisheries Society, The Wildlife Society, etc.

Audit: Self-explanatory.

The Budget Justification for the **Public Information/Membership, Educational Services**, and **Technical Services Programs** is as follows:

Salary: Reflected at $30,000/annum for each of the positions.

Fringe: Calculated at a rate of 13.35% which covers the cost of Federal Unemployment, State Unemployment, Colorado State Workmen's Compensation, and FICA match for three employees.

Relocation Allowance: Provided at a rate of $1,000 per new staff member.

Travel & Per Diem: Provides for 11 trips per staff member plus funds for local travel.

Insurance: Covers the cost of health/dental and life insurance for each staff member.

Telephone: Calculated at a rate of $100/month for long distance calls. The Administrative budget will pay for the local telephone charges.

Rent - Furniture: Allows for the rental of office furniture for each staff member.

Office Supplies: Calculated at a rate of $100/month for general office supplies necessary to the operation of each specific program.

Scholarship Fund: Provides a $3,000 scholarship to a young Indian person entering an accredited college in the field of fish and wildlife management.

## PARTICIPATION OF INDIAN TRIBES IN FEDERAL AID TO SPORT FISH AND WILDLIFE RESTORATION PROGRAMS

As you know, Indian Tribes have been precluded from participating in Federal Aid to Sport Fish and Wildlife Restoration programs funded through the Dingell-Johnson (D-J) and Pittman-Robertson (P-R) acts. We understand that a record high preliminary apportionment of $188 million, including $110 million in D-J funds for fisheries programs and $78 million in P-R funds for wildlife programs, is being made available to state fish and game agencies in FY1988, and that this amount could increase further as 1987 excise tax accounts on the sale of fishing and hunting equipment utilized to finance these programs are closed.

Through the Dingell-Johnson (D-J) Act passed in 1950 (16 U.S.C.A. 777 et seq.) and the Pittman-Robertson (P-R) Act passed in 1937, (16, U.S.C.A. 669 et seq.), the Federal Government makes matching grants to states and United States territories for restoring and managing sport fish and wildlife resources, and for managing public recreational use of these resources. Funds for P-R grants have been derived from an 11 percent federal excise tax on firearms, ammunition and archery equipment, and from a ten percent tax on handguns. Revenue for D-J grants has been derived from a ten percent excise tax on certain sport fishing equipment. A provision of the 1984 omnibus tax bill merged the D-J program with the federal boating safety program, created an Aquatic Resources Trust Fund (commonly referred to as the Wallop-Breaux Fund) composed of separate D-J and Boating Safety accounts, and more than tripled the revenue available to the D-J account. As a result, it is anticipated that more than $200 million annually will be made available to states and territories in FY1988 and subsequent years.

We believe that a portion of the excise taxes collected by the U.S. Treasury and transferred to the U.S. Fish and Wildlife Service for distribution to the states should be made available for fish and wildlife restoration, enhancement and management programs conducted by Indian Tribes. Indian reservations contribute significantly toward meeting the national demand for fishing and hunting, account for millions of public use days of outdoor recreation, and contain habitat which is critical to the recovery of a number of species listed as threatened or endangered, and necessary for the conservation of other nationally significant fish, big game, migratory bird and other populations. Tribal fish hatcheries produce millions of salmon, steelhead trout, walleye and other species which support large and diverse sport fisheries.

Fish and wildlife management activities have been conducted on at least 150 reservations in 23 states, containing more than 730,000 acres of lakes and impoundments and over 10,000 miles of streams and rivers. Fish are being stocked on over 84 of these reservations. Surveys conducted during the mid-1970's reveal that Indian reservations supported approximately 10.5 million recreational use-days annually, including about 8.5 million days of public use. Most of the recreation provided was water-based, with fishing accounting for most of the user-days. The Cherokee, North Carolina; Flathead, Montana; Fort Apache, Arizona; Leech Lake, Minnesota; Pyramid Lake, Nevada; and Lower Colorado River, Arizona reservations each provided more than 250,000 days of public recreational use annually, most associated with fishing. The Bureau is currently updating its Natural Resources Information System to allow for the compilation of more comprehensive data and the Native American Fish & Wildlife Society is attempting to coordinate additional information directly from the Tribes who operate the programs.

# FEDERAL AID IN SPORT FISH RESTORATION ACT
# DINGELL-JOHNSON ACT OF 1950

Position Paper
by Dewey Schwalenberg
Executive Director, NAFWS

## Dingell-Johnson Bill Amendment

The exclusion of Indian Tribes from participation in funding through the Federal Aid in Sport Fish Restoration Act of 1950 (Dingell-Johnson) has decreased the Tribes' ability to manage its fisheries resources. A major limiting factor to Tribal self-regulation of Indian people has been the discrepancy between the rights of Indian fishermen to harvest fish resources and the privileges of non-Indian fishermen to harvest fish resources. This dichotomy in management philosophies has separated the interests of Tribes and states since the beginning of their interaction.

Notwithstanding this major difference, Tribes and states do have common interests and concerns for the fisheries resource. The need to protect the dwindling stocks of sport and commercial fish is essential to all entities concerned. The Federal Government, through its agencies (Bureau of Indian Affairs, National Park Service, U.S. Fish & Wildlife Service, etc.) also retains a vested interest in the fisheries resource and can play an integral part in breaking the deadlock between state and Tribal interests.

Tribes are dependent sovereign entities that rely upon Federal Government support to meet fisheries resource management responsibilities. Tribes have very limited ability to tax to provide a stable basis of funding to support management activities. Tribes and Tribal people, however, are not immune to Federal taxation and actively provide a substantial amount of revenues to the Federal treasury either voluntarily or unknowingly. Specific taxation of Indian people is accomplished, along with non-Indians, through the purchase of boats and motors, fishing tackle, baits, accessory equipment, and other taxable items. This tax collectively provides the Dingell-Johnson monies that are available for support of FISHERIES ENHANCEMENT projects.

Recently, Ross Swimmer, Assistant Secretary of the Bureau of Indian Affairs, completed a major undertaking to respond to critics of Indian Resource Management Programs by compiling a list of Indian fisheries management activities carried out nation-wide. This list is significant and clearly indicates the benefits that Indian fisheries management programs provide to Indians and non-Indians alike in sustaining a variety of fisheries. These Tribal fisheries enhancement activities have been overlooked for many years. It's time to recognize that cooperative management of the fisheries resources must be increased which means cooperating in the use of available funding as well. Tribes must be included in the funding opportunities if they are expected to be responsible for their share of fisheries enhancement activities.

The Native American Fish & Wildlife Society is hereby proposing that an amendment be drafted and introduced into Congress to fund Tribes under the Federal Aid in Sport Fish Restoration Act (Dingell-Johnson), and the Wallop-Breaux Fund (Wallop-Breaux) to stabilize Tribal fisheries management activities and to recognize the contribution that Tribes have continuously made to sport and commercial fish enhancement. This action would begin to alleviate the feelings of inequities that exist between Tribes and states, but would also clearly identify the cooperative nature of fisheries management that states and Tribes must develop. Funding for management/ enhancement projects, through any source, simply cannot support the duplication of effort that is currently going on across the country. This wasteful practice restricts the ability of any management entity to get the funds necessary to do an adequate job. Through sharing of co-management funding, this duplication could be reduced as individual organization responsibilites are identified.

The NAFWS is further proposing that sound scientific criteria continue to be used to allocate federal excise tax dollars to the Tribes. These criterion, evaluated through an application process to the U.S. Fish & Wildlife Service or some other acceptable organization, would help to eliminate competition between the states and Tribes. A specific formula to set aside a segment of Dingell-Johnson, Wallop-Breaux taxes for the Tribes in accordance with their ability to impact upon local fisheries stocks would seem to be the most reasonable way to proceed. Competition for funds would then be minimal, provided that provisions for growth of the Tribes would be included for future years. Impact of Tribal management on the regional fisheries resource would be reviewed periodically and worked into a formula that would be applied annually. Undoubtedly, increases in tax revenues will be realized as fishing and boating activities expand into Tribal management areas. As Tribes are able to assist in the expansion of these opportunities, so should they receive the financial assistance available to continue these activities. The Tribes expect, however, to be included in an equitable system that is free from traditional restrictions to exercise Tribal management strategies, philosophies, and sovereign jurisdictional ideals. The past has demonstrated that Tribal management policies have protected the fisheries resource to the benefit of all user groups. The NAFWS requests that an active effort be made to change the Dingell-Johnson, Wallop-Breaux provisions to include Tribal management efforts.

At the annual NAFWS meeting in Albuquerque, New Mexico in April, 1987, a lengthy discussion centered around the need for amendments to the Dingell-Johnson, Pittman-Robertson Sport Fish & Wildlife Enhancement Acts. Tribes represented at the meeting unanimously voted to develop a legislative steering committee to promote the introduction of an appropriate amendment. The result of such action would allow for a coordinated use of Tribal efforts in affecting a change in not only the Dingell-Johnson Act, but also the Federal Aid in Wildlife Restoration Act (Pittman-Robertson) and the Fish and Wildlife Conservation Act (Forsythe-Chafee) as well. Lobbying by the Tribes will need to be available at the individual Tribal level of interest and financial ability and a coordinated national level undertaking should be planned and implemented as quickly as possible. The Native American Fish & Wildlife Society is ready to assist in this major undertaking.

DEC 22 1987

Honorable Orrin G. Hatch
United States Senate
Washington, D. C. 20510

Dear Senator Hatch:

Thank you for your referral of September 23, 1987, which forwarded a copy of a September 9, 1987, letter to Secretary Hodel from Mr. Patrick Sackett, Vice President of the Utah Wildlife Federation. (Unfortunately, the Department has no record of receiving this letter prior to your referral.) Mr. Sackett expressed concern about a proposal by the Assistant Secretary - Indian Affairs to amend the Federal Aid to Sport Fish and Wildlife Restoration Acts to provide for the participation of Indian tribes in associated programs. Through these statutes, the Federal Government makes matching grants to states and United States' territories for restoring and managing sport fish and wildlife resources, and for managing public recreational use of these resources.

The proposal was made in response to requests received from fish and wildlife resource tribes, Bureau of Indian Affairs' officials, and the Native American Fish and Wildlife Society, to have Indian tribes be declared eligible to participate in related programs on the more than 50 million acres of trust land nationwide, which account for millions of public hunting and fishing use days annually. The proposal was also made in recognition of its controversial nature, with the understanding that a thorough review of the issues would have to be made before finalizing any recommendations. In this context, the International Association of Fish and Wildlife Agencies (IAFWA) has been requested to comment on the proposal from two standpoints: (1) the merits and principle of tribal eligibility and participation, given the values of reservation resources, the amount of public use provided, the degree to which tribal resource management capabilities have been developed, and the government-to-government relationship through which tribes are dealt with; and (2) potential implementing criteria and mechanisms.

The IAFWA (composed of fish and wildlife agency personnel of each state and United States territory, as well as other jurisdictions) has three committees looking into the various aspects of tribal participation in Federal Aid to Sport Fish and Wildlife Restoration programs. Surveys, reviews and analyses should be completed by January 1988, with a report and recommendations forthcoming.

There are many options to explore, including cooperative ventures between affected tribes and states. You can be assured that all interests will be considered during our review of this issue.

Sincerely,

Donald Paul Hodel

DONALD PAUL HODEL

January 27, 1988

Secretary Donald P. Hodel
United States Department of the Interior
Office of the Secretary
19th & Constitution Avenue
Washington, D.C. 20240

Dear Secretary Hodel:

I have reviewed your correspondence of December 22, 1987, to Senator Orrin G. Hatch concerning the eventual participation of Indian Tribal Governments in Fisheries and Wildlife Enhancement Funding (Dingell-Johnson, Pittman-Robertson). I find the review of the Tribal position by the International Association of Fish and Wildlife Agencies (IAFWA) and other considerations expressed in your letter to be a real concern for the Tribes who are in dire need of consistent fish and wildlife enhancement funding as the states and territories are.

Tribes have made major strides in developing their resource management capabilities and currently possess professional organizations and programs that could competently develop the information that you are seeking through the IAFWA. I must assume that your agency is in some manner planning for major input directly from the Tribes before any ultimate position is reached in this matter.

As a representative of the Native American Fish & Wildlife Society, I can assure you that we have been promoting Tribal involvement in this issue. We intend to coordinate the interests of local Tribes, regional Tribal organizations, and national Indian groups to ensure that an impartial plan can be developed to remedy this legislative oversight.

Please consider this correspondence an invitation to use our efforts at coordinating Tribal input into this process as a means to ensure that the Tribes will be in support of the outcome. I will be in Washington, D.C. February 18th through the 26th and would welcome the opportunity to personally discuss this issue with you. If such a meeting can be arranged, please provide me with a time schedule that would be convenient for you. I will arrange my schedule accordingly.

I hope that the Tribal initiative as presented will assist in developing a consensus regarding this issue. I look forward to your forthcoming communication.

Respectfully,

Dewey Schwalenberg
Executive Director

## ADDITIONAL SUBMITTED STATEMENTS

Mr. Estes. The record will remain open so that statements of witnesses not appearing before the committee can be submitted for inclusion in the record.

[The statements follow:]

## STATEMENT OF THE NAVAJO NATION

Mr. Chairman, Members of the Committee, thank you for providing the Navajo Nation with this opportunity to comment on the Bureau of Indian Affairs proposed budget for fiscal year 1989. The statement has been drafted to guide this Committee in its efforts to shape the best possible budget for Indian people in fiscal year 1989.

For those of you not familiar with the Navajo Nation, we would like to provide you with the demographics of our reservation. The Navajo Nation is the largest Indian tribe in the U.S. with a population rapidly approaching 200,000 -- nearly 20 percent of the reservation-based Native Americans in the U.S. are Navajos. Our people are young; 50 percent of Navajos are under 21. Our average age is 17.5, and we are growing rapidly at 3 percent per year, three times the national average.

Unfortunately, the living standards of Navajos are still dramatically below those of people living in the surrounding states. According to the 1980 Census, the per capita income of a Navajo was approximately $2,400. This is approximately 1/3 the levels of people living in Arizona, New Mexico and Utah. Our unemployment rate is between 30 percent and 40 percent, and is much higher in several areas throughout the reservation. These levels are approximately five times the levels of the surrounding states.

Overall, this proposed is a marked improvement over last year's proposed budget. You might remember that in its fiscal year 1988 budget submission the Bureau proposed several misguided initiatives. These initiatives included transferring the Bureau's education responsibilities to states or other third parties if tribes did not agree to take over this critical function within one year. Thankfully, Congress blocked this coercive proposal in last year's continuing resolution and several other pieces of legislation. The comprehensive education bills (S.373, H.R.5) currently before a conference committee also prohibit this proposal. The Navajo Nation has also always supported contracting for functions currently provided by the Bureau of Indian Affairs for the purpose of self-governance and increased efficiency. However, we simply would not be forced into taking over education within one year. Additionally, the Bureau attempted to impose an $850 tuition requirement on Native Americans utilizing the three BIA post-secondary schools. This proposal would have placed an additional burden on hundreds of Navajos utilizing these schools. This year's budget contains no such surprises. What follows are summaries of important programs serving the Navajo people and how the proposed budget will affect the provision of services currently being provided on the reservation.

## I. Education

Education is a critical component of self-sufficiency. The classroom is where children spend approximately half of their time and where their values and sense of responsibility are shaped. We all know the past problems and inadequate performance of BIA education. Although funding is but one element of education, the funding levels proposed in this budget will not improve BIA education nor expand educational opportunity necessary to facilitate self-sufficiency.

The Bureau proposes to spend $187,502,000 on school operations. This is a reduction of approximately $2 million from last year's appropriations. The majority of the money is spent on the Indian Student Equalization program which is a formula that provides funds on a weighted per student basis.

With a growing service population, funding for this program must be increased. Additionally, the formula is not flexible enought to meet the needs of our gifted and talented students. The formula does not include variables to provide funding to finance programs for gifted students. We need to encourage our gifted students who may be our next generation of leaders.

Out of the proposed amount, funds are also provided to transport students to school. Last year, approximately $12 million was provided for this function. Funding needs to be increased. Due to the size of our reservation and long distances between school and home, students sometimes spend several hours of their day being transported to and from school. Additionally, the underdeveloped nature of our infrastructure often keeps our children from the classroom. For these reasons, additional funding is required to efficiently transport our children to and from school safely.

Another program within school operations is substance abuse and alcohol education programs. In fiscal year 1988, $2.4 million was spent for this purpose. It is not enough. As this Committee knows, alcohol and drug abuse are massive problems throughout Indian country. By the time Navajos reach high school, 50% have experimented with either alcohol or drugs. The menace of drug and alcohol abuse is hindering our children's and thus, our nation's development. Alcohol is correlated to five of the leading ten causes of death on our reservation. Additionally, 50 percent of the cases heard by Navajo courts are associated with alcohol.

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## LETTER FROM THE SHOSHONE AND ARAPAHOE TRIBES

March, 1988

Honorable Robert Byrd, Chairman
Senate Appropriations Subcommittee on Interior
and Related Agencies
SD-122 Dirksen Senate Office Building
Attention: Ms. Sue Masica, Staff Assistant
Washington, D.C. 20510

Dear Chairman Byrd:

We are writing to express our concern about fish and wildlife programs and funding.

As you know, the Fish and Wildlife Service (FWS) of the Interior Department has operated programs on Indian lands for many years. Between 1982 and 1987, funds for the FWS programs were appropriated under the BIA budget. BIA then transferred the funds to FWS through a memorandum of agreement. This arrangement did not work well. Funding was always late and program administration was not effective.

We were very encouraged by Congress' decision to provide direct appropriations to FWS for FY '88. However, we now understand that for FY '89 the BIA is once again attempting to receive the FWS funding for Indian lands. We urge you to reject the BIA request because it will simply lead to more inefficiency and confusion.

With respect to funding for FWS programs, we note that for FY '88 the Lander office is budgeted at about $171,000.00 This amount is inadequate. Moreover, the funding problem is becoming critical due to the BIA's insistence that FWS return to the BIA any and all equipment purchased by FWS between 1982 and 1987. It seems clear to us that the BIA would like to destroy any effective fish and wildlife program on the Wind River Reservation.

For FY '89, we are seriously considering contracting under P.L. 93-638 for the Lander FWS office. As part of our deliberations we have developed a realistic budget for FY '89. We estimate our total funding needs to be $462,311.00. A copy of our detailed budget is enclosed for your reference.

We hope that you will be able to support our request for funding and our request that funds for fish and wildlife programs be appropriated to FWS, not the BIA.

Thank you for your time and consideration of these requests.

Sincerely,

John Washakie

John Washakie, Chairman
Shoshone Business Council

Gary Collins

Gary Collins, Chairman
Arapahoe Business Council

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PROPOSED BUDGET

Fish and Wildlife Technical Assistance for the

WIND RIVER INDIAN RESERVATION, Wyoming

FY-89

TOTAL Budget Request $402,010

| | | |
|---|---|---|
| Salaries Total = | 7 FTE's | $183,860 |
| Project Costs (excluding salaries, see text for detailed project analysis) | | |
| Fisheries Projects | | 96,000 |
| Wildlife Projects | | 79,050 |
| Equipment (see attached fisheries program, project analysis replacement of equipment lost due to transfer) | | 43,100 |
| GRAND TOTAL | | $402,010 |
| ADMINISTRATIVE OVERHEAD | 15% | 60,301 |
| TOTAL INCLUDING OVERHEAD | | $462,311 |

Note: In future budgets, there should be annual adjustments to allow for inflation, salary adjustments and possibly new personnel.

## LETTER FROM THE ASSOCIATION ON AMERICAN INDIAN AFFAIRS, INC.

March 17, 1988

Hon. Robert C. Byrd
Chairman
Senate Appropriations Committee
House Interior Subcommittee
122 Senate Dirksen Office Building
Washington, D. C. 20510

Dear Senator Byrd:

Kindly make this letter part of the record of the hearing of your Interior Subcommittee of the Senate Appropriations Committee on the FY 1989 budget proposal of the Bureau of Indian Affairs.

The Association on American Indian Affairs, Inc. (AAIA) is a national non-profit citizens' organization, headquartered in New York City, dedicated to the preservation and the enhancement of the rights and culture of American Indians and Alaska Natives. The policies of the Association are formulated by a Board of Directors, a majority of whom are Native Americans.

Once again, AAIA is compelled to submit a statement pertaining to the proposed FY 1989 budget for Indian child welfare grants. Year after year, the Bureau of Indian Affairs has failed to recognize the critical importance of these grants to Indian tribes, families and children. Its proposal to cut an already inadequate budget -- from $8.8 million in FY 1988 ($9.7 million in FY 1983) to $6.8 million in FY 1989 -- must not be adopted by the Congress.

The Association has long been involved in Indian Child Welfare issues. AAIA studies were prominently mentioned in committee reports pertaining to the enactment of the Indian Child Welfare Act. We continue to work with tribes in implementing the Act including the negotiation of tribal-state agreements and legal assistance in contested cases. We have considerable knowledge of the current Indian child welfare system.

As you probably know, many of the programs funded by the Indian Child Welfare grant program have become, in effect, the social services program for the tribe or Indian organization that has received the grant. Thus, the cuts proposed by the Administration for FY 1989 are of great significance. They will greatly diminish the ability of Indian people to realize the goals of the Indian Child Welfare Act -- to promote the best interests of the Indian child by keeping Indian families intact and maximizing the possibility that Indian children will be raised in Indian environments.

The Bureau estimates that the proposed budget for FY 1989 will result in the funding of only 100 tribes and Indian organizations. This is far below the perceived need and past funding levels. Last year, 128 grants were awarded. In FY 1983, 164 grants were awarded. Even this number of grants left many programs unfunded. In FY 1986, for example, 239 applications for grants were submitted to the BIA.

We believe that if Congress is to achieve the goals which it intended in enacting the Indian Child Welfare Act additional money needs to be appropriated for FY 1989. Each year the Congress has rejected Administration attempts to slash the budget for Indian Child Welfare. We urge Congress once again to, at the very least, maintain budgetary levels and, if at all possible, increase the ICW budget. We would note that the "Children's Initiative" in the FY 1987 budget resolution included a $12 million appropriation for Title II ICWA grants. Apparently, this budget provision was a result of hearings held in early 1986 by the House Select Committee on Children, Youth and Families in which the effectiveness of Indian Child Welfare programs, where they exist, and the paucity of the funding for such programs was made known to that committee. Unfortunately, the Appropriations bill for FY 1987 did not follow this recommendation.

One final point should be made. If questioned about the program, the Bureau may very well assert that all "qualified" programs will receive funding this year; that no more money is needed because all of those who did not receive funding did not submit suitable applications. It is difficult to see how such an assertion can be made. First of all, it is highly unlikely that the number of qualified applicants has dropped so substantially -- from 164 in FY 1983 to 100 in FY 1989. Moreover, the grant review process has been problematic -- no justification is advanced that we are aware of for the use of 85 as a "qualifying" score (except maybe a desire to limit appropriations) and the scoring of nearly identical grant applications has been known to vary widely from year to year.

The Indian Child Welfare program is modest in size but of great importance. We hope that this information will help Congress set adequate funding levels for Indian Child Welfare programs in FY 1989. Thank you for giving us the opportunity to submit this testimony.

Sincerely,

Dr. Idrian N. Resnick
Executive Director

Jack F. Trope
Staff Attorney

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## STATEMENT OF ZANE JACKSON, TRIBAL COUNCIL CHAIRMAN, THE CONFEDERATED TRIBES OF THE WARM SPRINGS RESERVATION OF OREGON

**SUMMARY OF REQUESTS**

Mr. Chairman, members of the Subcommittee, I am Zane Jackson, Chairman of the Confederated Tribes of the Warm Springs Reservation of Oregon. I am presenting this testimony to request the continuation of the Warm Springs pilot alcoholism treatment project at $125,000, provision of adequate B.I.A. funding for the continuation of the negotiations of the Warm Springs Tribes water rights, the restoration of $3,150,000 to Forest Development and $2,538,000 to Tribe/Agency Forestry, rejection of the request to have the B.I.A. negotiate with Tribes to establish Tribal 638 indirect cost rates, and FY 1989 funding additions of up to $11.8 million for B.I.A. contract support and up to $12.5 million for I.H.S. contract support.

**1.) ALCOHOLISM TREATMENT AND PREVENTION PROGRAM (Continue $125,000 appropriation)**

Since initiating our alcoholism treatment and prevention program in 1983, our Tribes, the I.H.S. and the State of Oregon have all made significant contributions in combating alcohol and drug abuse in the Warm Springs community. Total financial efforts were $534,000 in 1987 and $473,000 in 1988. This includes the $125,000 annual I.H.S. appropriations for the demonstration residential treatment program, which the Tribes matched with expenditures of about $150,000 each year. But more than numbers, the effort is beginning to be drawn into the community. Acceptance is increasing, and results are encouraging. Productivity among residential program patients is up 40%, health functioning up by 47%, and antisocial behavior reduced by 49%. Dysfunctional alcohol use has reduced among program participants, and Years of Productive Life Lost, a statistical measure of mortality associated with alcohol abuse, shows that alcohol related deaths have declined from 68% of years lost in 1985 to 40% of total years of life lost in 1987.

We are now working will with the I.H.S. and our reporting system is being improved. We are developing an after-treatment care program. I also understand that the Portland I.H.S. Office has issued a positive report on our program, and urges continued funding. With the project now well underway, we, too, request that, out of funds available, $125,000 be provided in the I.H.S. alcoholism budget for continuation of the Warm Springs alcoholism treatment demonstration project. We ask that it come from available funds because, since the inception of the project, the I.H.S. Alcoholism budget has continued the project's funding in its base. We shall be submitting to the Subcommittee a full report on the project to date.

**2.) WARM SPRINGS WATER QUANTIFICATION NEGOTIATIONS (report language directing provision of adequate B.I.A. funding for continuation of the negotiated settlement of the Warm Springs water rights)**

Several years ago, at the specific request of the Secretary of the Interior, the Warm Springs Tribes entered into negotiations with the State of Oregon and the U.S. government to quantify our reserved water rights. The Tribes and the State spent several years effort and many thousands of dollars in proceeding with negotiations only to find the Department of the Interior last year reversed itself and chose to devote it resources to litigation, rather than negotiation. The Tribes and Oregon still desire to pursue a settlement, but we need continued funding for negotiations and studies. Our rough estimate is that approximately $350,000 out of funds available in either the Water Rights Negotiation / Litigation budget of Trust Responsibility or, should it be restored, the Water Management and Development budget of Natural Resources will allow us to continue toward settlement. However, because developing an exact figure is difficult at this point, we ask that, rather than earmarking a specific amount, Committee report language be included directing the Bureau to provide funds adequate to the Warm Springs Tribes' needs for continuing our water settlement negotiations. As a matter of justice, funding should be continued to honor the commitment the U.S. government assumed when it persuaded the Tribes and the State to embark on these negotiations.

**3.) FOREST DEVELOPMENT (Restore $3,150,000)**

Over years, B.I.A. inadequate management allowed a backlog of under-productive or out of production forest lands to accrue until this Subcommittee and its House counterpart, in FY 1987, initiated a specific effort to correct this. Based on current annual funding of $8,150,000, we at Warm Springs receive $615,000 a year for backlog reduction. This entire amount is applied to replanting, and the we ourselves pay for the elimination of the thinning backlog. Under this arrangement, we estimate that our 14,100 acre replanting backlog will not be eliminated until 1999, despite the Bureau's projected earlier target date. If the annual level of funding is reduced, it would certainly be well past the turn of the century before all of the backlog at Warm Springs will be eliminated. Therefore, we request that $3,150,000 be restored to the Forest Development, maintaining the program at its FY 1988 level of $8,150,000 so that the backlog of underproductive forest lands can be regenerated as soon as possible.

Our payment for the regeneration of the thinning backlog on our reservation is one example of the cooperative spirit with which we at Warm Springs try to work with the federal government. We realize that, within our respective capacities, we must work together in order to be successful. Any federal policy that seeks to force upon Indian people that which they do not seek, do not want and are not ready for is foreordained to fail. What has and can succeed is a joint tribal - federal effort to accomplish what tribes, through their strong governments, initiate in response to the needs and desires of their own people.

**4.) TRIBE/AGENCY FORESTRY (Restore $2,538,000 for timber sales administration)**

The B.I.A is once again making after-the-fact alterations to the Indian Priority System, making it very difficult for Tribes to conduct long range planning and generate necessary budgetary stability. In recent years, these unilateral attempts to alter the IPS have been frequent. Such changes in the IPS must be stopped if the tribes are to place any long term confidence in the Bureau of Indian Affairs and truly set our own budgets.

One particularly favorite IPS target for B.I.A. cuts in recent years has been Tribe/Agency Forestry, and FY 1989 sees the trend continued with the Bureau proposing a $2,454,000 net reduction for that program. It is our understanding, however, that the cut is really $2,538,000, which indicates that, for FY 1989, the tribes actually prioritized more funding for Forestry than in FY 1988, probably due to an expected continuation of the strong demand for timber. The cut should be restored not only to maintain the integrity of the IPS, but even more because the cut is aimed at Timber Sales Management, which is the heart of the Bureau's trust administration of our forests and essential to the tribes receiving the full value of our forest resources. Also, since FY 1978, when the Appropriations Committees specifically increased B.I.A. Timber Sales Administration to upgrade the trust management of our forests, those activities have been steadfastly defended by the Congress. Now, in the face of a very strong demand for timber, the B.I.A.'s proposed cut is especially counterproductive. So, the Confederated Tribes of Warm Springs request the restoration of $2,538,000 to Tribe/Agency Forestry.

**5.) INDIRECT COST RATE NEGOTIATIONS (No budget impact)**

The B.I.A. is once again attacking the well established policy of Tribal negotiations with the Office of the Inspector General to determine their contract indirect cost rates. On page 81 of the Bureau's budget justification, they propose not only having the Secretary - which would in effect be the Bureau - take over as the negotiator, but on inserting the word "reasonable" into the limitations it could apply in awarding tribal indirect cost rates. The Bureau's past record has not been supportive of the Tribes recovering its actual costs. Permitting the Bureau to conduct the negotiations would be placing the fox in the middle of the hen house. It also suggests that the negotiations conducted by the Inspector General, which is a neutral party, have somehow been "unreasonable". In fact, the Inspector General's negotiations are presently conducted in accord with OMB Circular A-87 and OASC 10, both of which draw upon the concepts of "reasonable" and "allowable" costs. To us, the B.I.A.'s request is nothing more than another attempt by them to dictate to tribes on indirect cost rates. Therefore, we request that the B.I.A.'s proposal to handle indirect cost rate negotiations be rejected.

**6.) 638 BIA CONTRACT SUPPORT (up to + $11,800,000 additional appropriation)**

The B.I.A. proposed FY 1989 budget is inadequate on several elements critical to strong and stable tribal governments. Foremost, the B.I.A. request for Self Determination contract support of $46,266,000 is almost $12 million short of the $58 million we calculate to be the true Bureau-wide need for FY 1989. To the extent that full contract support is not provided by the federal government, the tribes must bear the shortfall, diminishing - to carry out a federal policy - our own funds for our own essential governmental services. So that the federal government and the tribes may both fully realize the promise of Self Determination, the Confederated Tribes of Warm Springs request the addition of $11.8 million to B.I.A. contract support.

In making this request, we point out that the addition of $11.8 million would provide 100% recovery of tribal indirect costs on a national basis. We realize that is perhaps a prohibitively large figure, and that it may be unattainable. However, any increase over the existing level of funding would increase our rate of recovery and diminish the subsidy that tribes must now in effect pay to contract for federal programs. Therefore, any increase the Committee could accommodate would be greatly appreciated.

**7.) IHS 638 CONTRACT SUPPORT (up to + $12,500,000 additional appropriation)**

For the same reasons stated for the full provision of contract support for tribal contracts with the B.I.A., the indirect costs of Tribal contracts with the Indian Health Service should similarly be as fully funded as possible. Whatever amount is added should be appropriately denoted and included in the base funding for Hospitals and Clinics, as was the I.H.S. contracting indirect cost increase in FY 1988.

Thank you.

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## STATEMENT OF ROBERT HOAG, PRESIDENT, THE SENECA NATION OF INDIANS

Mr. Chairman and members of the Committee, I am Robert Hoag. I am the President of the Seneca Nation in New York. I appreciate the opportunity to testify before you today on an appropriations request of great importance to the Nation. The request concerns a proposed water quality improvement project for the Cattaraugus Reservation. As explained below, the cost of this project is $6.5 million. The project could be funded over either two or three fiscal years.

The Seneca Nation has two reservations, the Allegany Reservation and the Cattaraugus Reservation. On the Cattaraugus Reservation, we have a terrible problem with water quality. In 1985, we contracted with a New York engineering firm to perform a water quality study on the Cattaraugus Reservation. This study indicated that many of the homes on the Reservation are served by wells which yield water with very high barium and sodium content. Some of the barium levels are the highest recorded anywhere in the world. The levels of sodium and barium far exceed EPA standards. The study also indicated that the water contains harmful bacteria in unsafe amounts.

Barium is poisonous to humans. It has toxic effects on the heart, blood vessels, and nerves. The medical community recognizes that too much barium in drinking water causes cardiovascular problems, hypertension, and renal disease. Too much sodium is also a major factor in hypertension. And, the bacteria cause many diseases of the digestive tract, including hepatitis A.

Based on its review of health care statistics on the Reservation frcm 1978 through 1985, the water quality study concluded that the people of the Cattaraugus Reservation suffer from extremely high rates of hypertension, cerebrovascular disease, cardiovascular disease, and certain diseases of the nerves. The study estimated that 90 percent of Cattaraugus residents suffer hypertensive effects from the barium. The study also reported frequent cases of serious gastrointestinal disease, including amebic dysentery, severe gastroenteritis, giardia lamblia, and hepatitis A. According to the study, all of these problems were definitely related to poor quality drinking water. Obviously, it is dangerous for our people to drink this water, but they have no choice.

The Indian Health Service is very concerned about this situation. The Nashville Area Office has ranked our water quality problem on the Cattaraugus Reservation as its number one priority sanitation project, out of about sixty-five such projects. We are furnishing to the Committee a letter from the Nashville Area Director to Dr. Everett Rhoades that strongly supports our project.

The Environmental Protection Agency has also conducted an investigation of water quality on the Cattaraugus Reservation. Although it has no funds available for this purpose, EPA strongly supports the project we are proposing. We are furnishing to the Committee a letter of support from EPA.

The water quality study included extensive analysis of the alternatives for improving the Nation's water supply. It concluded that the water from the contaminated wells could not be adequately purified. We therefore need a new source of water. In accord with these recommendations, we are seeking to participate in a two-phase water quality improvement project.

The first phase of the project would be to build a pipeline, jointly with three nearby towns, to carry water from the Erie County Water Authority to the Cattaraugus Reservation and the three towns. This is a favorable project financially because the Erie County Water Authority will contribute $1.8 million to the cost. The water, of excellent quality, is treated by a state-of-the-art facility. Our share of the cost would be $748,000, at least some of which we hope to finance through IHS and HUD funds available in FY 1988.

The second phase of the project is construction of a water distribution system to carry the water from the pipeline to individual homes on the Cattaraugus Reservation. The total cost of this phase is $5.752 million. This includes construction of transmission waterlines, pump stations with pressure tanks, a 250,000 gallon elevated storage tank, engineering services, water line service, and abandonment of existing wells. The funds for construction of the pipeline bring the total to $6.5 million.

It would be difficult, if not impossible, for the Nation to expend the entire $6.5 million in one fiscal year. Accordingly, the Nation has obtained from the project engineers a cost breakdown of the project into three phases. The full breakdown is attached to the briefing paper furnished separately to Committee staff. The Nation requests that the first two phases, including construction of the pipeline, be funded in FY 1989, for a total of $4.109 million. The third phase would then be funded in FY 1990, for a total of $2.391 million. In the alternative, Congress could fund the project in three phases -- $2.465 million in FY 1988, $1.644 million in FY 1989, and $2.391 in FY 1990.

Funds for this project would be available from IHS in the category of sanitation facilities. We are requesting the Committee's support for a substantial increase in this line item for FY 1989. We also ask that you earmark $4.109 million of these funds specifically for the Seneca Nation, with the remainder of the funds to be provided in FY 1990.

Mr. Chairman, that concludes my testimony for today. I would be glad to answer any questions you may have.

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## STATEMENT OF THE ASSINIBOINE AND SIOUX TRIBES OF THE FORT PECK RESERVATION

The Assiniboine and Sioux Tribes of the Fort Peck Reservation appreciate the opportunity to present testimony to this Committee concerning appropriations for the Bureau of Indian Affairs and the Indian Health Service. Please include this testimony in the record of the hearings held on March 2 and 3, 1988.

Bureau of Indian Affairs

1. Fish and game funding. The Bureau of Indian Affairs, through a Memorandum of Understanding with the Fish and Wildlife Service, provides technical assistance to tribes on fish and game

matters. At Fort Peck, we receive technical assistance through the Creston Field Assistance Center.

The Creston Center, which serves five Montana tribes, has been chronically underfunded. In FY 1988, it had a budget of $80,000, which the Billings Area Office described as "inadequate to meet established operational responsibilities." It proposed to increase the budget to $150,000 in FY 1989, which among other benefits would enable tribes to develop "appropriate codes and ordinances to manage their fish and wildlife resources." (See Attachment.)

Even among tribes in the Creston service area, which as noted is underfunded generally, Fort Peck has suffered particular disadvantage. In FY 1988 we received $9,500, which was the lowest amount per acre of Reservation trust land and per total Reservation acres of any tribe in the area. We propose an increase of our fish and wildlife contract to $25,000, the same amount proposed last year by the Area Office.

We have many unmet needs in the area of fish and wildlife. The three highest priority areas are the following: (1) assistance of trained biologists in planning, assessment of resources, and habitat analysis in preparation for the Tribes to assume more regulatory functions, including setting bag and creel limits and improving the tribe's fish and game code; (2) training for law enforcement personnel; (3) enhancement of efforts to test pesticide residue levels in birds and control pesticide use on the Reservation. The requested funding increase would greatly improve our chances of establishing a meaningful program of fish and wildlife regulation on the Fort Peck Reservation.

2. Tribal courts. The Fort Peck Tribes strongly supports increased funding for tribal courts. The only significant increase the BIA has proposed for this category is $359,000 to establish a Judicial Services Center to provide "basic tribal court review" and "limited on-site training services." (See BIA Budget Justification, pp. 65-66.) We suggest that in this time of constricted budgets, these funds would be better spent in improving the capability of individual tribal courts.

At Fort Peck, our top funding priorities are the appellate and jury trial systems. Both of these systems are vital to guaranteeing our people's rights under the Indian Civil Rights Act. At recent hearings on tribal courts conducted by the Senate Select Committee on Indian Affairs, strengthening of tribal appellate systems was identified by a broad range of witnesses, both tribal and federal, as a key area.

At Fort Peck, we have a Court of Appeals that is hearing an increasing number of cases and is handling these cases with an increasing degree of sophistication. For FY 1988, we have already expended our allocation from the BIA for the entire year and also the supplemental amount provided by the Tribes. In the area of jury trials, more people are aware of their right to a jury trial and are requesting such trials. We will have a shortfall there as well. We suspect that other tribes, as they strive to improve their enforcement of the Indian Civil Rights Act, are experiencing similar problems.

At Fort Peck alone, an increase of $16,800 for the appeals court and $10,000 for jury trials is needed. We request that the Committee provide a substantial increase for tribal courts and if possible, earmark a portion of this increase for the Fort Peck Tribes.

Indian Health Service

(3) Kidney dialysis. We are very proud of the kidney dialysis clinic which we established on the Reservation last year. This is the first state licensed dialysis clinic operated by a tribe in Montana. We are approved to receive federal reimbursements from Medicare and Medicaid. By establishing this clinic, we are saving substantial funds for the Indian Health Service, both in transportation costs-- kidney dialysis patients from Fort Peck used to be transported to Minot, North Dakota for treatment-- and in costs of other treatments that we are now able to provide through our clinic.

IHS provides some support for the clinic, including a grant for certain capital expenditures and performance of routine lab work. However, there are other costs, particularly recurring costs that are not reimbursable, that we feel IHS should assist us with. Of the recurring costs, the most important one is the $1,000 per month fee for our medical director/nephrologist, who travels from Bismarck. This essential cost is not reimburseable.

We request that the Committee direct IHS to reevaluate its policy toward payment for kidney dialysis, with the objective of assisting tribes that are operating their own clinics and saving IHS money by doing so. IHS could increase the level of support for these clinics and still realize substantial savings.

(4) Housing for Wolf Point Clinic. We are in the process of commencing construction of a new clinic in Wolf Point on the east side of the Reservation. Congress appropriated the funds for this several years ago. The plans for this clinic originally included funds for ten units of housing for clinical staff. However, IHS now claims to have studied the housing situation on the Reservation and concluded that these housing units are not needed.

We disagree strongly. The housing units are definitely needed, and IHS' decision not to build them is causing considerable concern among potential clinic staff. We ask this Committee to direct IHS to re-evaluate the situation, and place the units of housing for Fort Peck back at the top of the funding priority list so that they can be ready when the clinic is finished.

(5) Contract Care. As this Committee is well aware, there is a massive backlog nationwide of "non-emergency" surgical cases in need of contract care funding from IHS. At Fort Peck alone, we now have a backlog of 271 cases of elective surgery. With substantial delays in treatment, these cases frequently become emergencies that are more expensive to treat than they would have been at the earlier, non-acute stage. We ask this Committee to recommend an appropriation specifically to address the problem of the contract care backlog.

(6) Indians into Medicine (INMED). The Fort Peck Tribes have long been a strong supporter of the INMED program. Strong support for this program is vital now that the staffing crisis at IHS has become acute. It is particularly important to produce more Indian health professionals who will serve their Indian communities on a long term basis.

In spite of the staffing crisis, the Administration has not proposed any increase whatsoever for Indian health manpower programs, including the INMED program. We ask the Committee to correct this unfortunate omission. At the least, the INMED program should receive the same "cost of living" increase proposed for most other programs in the Indian Health Service budget.

## STATEMENT OF GEORGE M. LEONARD, ASSOCIATE CHIEF, FOREST SERVICE, DEPARTMENT OF AGRICULTURE

Thank you for this opportunity to offer the Department of Agriculture's views on H.R. 1173, a bill to restrict use of lands within national parks and monuments, and S. 927 and H.R. 1975, the Federal Cave Resources Protection Act of 1987.

### H.R. 1173 - LAND USE RESTRICTIONS WITHIN NATIONAL PARKS AND MONUMENTS

We recommend that H.R. 1173 not be enacted unless it is amended to exclude National Monuments administered by the Forest Service from the proposed general restriction against new construction of dams or other impoundments.

H.R. 1173 would provide for certain restrictions on the use of lands within boundaries of National Parks and Monuments. The language fails to take into consideration the existence of those monuments administered by the Forest Service. Although, we recognize that the House Interior Committee report on the bill states that "H.R. 1173 specifically applies only to those units of the National Park System that are designated as 'Parks or Monuments'." as written, H.R. 1173 would require the National Park Service, rather than the Forest Service, to determine any development of impoundments within a National Monument administered by the Forest Service. These particular National Monuments were authorized by acts of Congress with specific management provisions addressing a broad spectrum of uses. The bill would adversely impact these provisions. For example, the flood control dam at Spirit Lake on the Mount St. Helens National Monument is a vitally important structure. It is conceivable that reconstruction or expansion of this facility may be necessary at some future time. The bill would prohibit this. We prefer that the limitation to National Park Service Monuments in the House Interior report language be incorporated into the statuatory language of H.R. 1173.

## S. 927 AND H.R. 1975 - FEDERAL CAVE RESOURCES PROTECTION ACT OF 1987

Caves on Federal lands are a vital part of our natural heritage. They are important scientific, educational, and recreation assets. There is, indeed, a need for increased efforts to secure, protect, and preserve cave resources on Federal lands. We support efforts to do so. However, not every void, cavity, or recess on the vast Federal estate possesses scientific, educational, or recreational value. Many are truly insignificant. And even where a cave may possess some value, there is a need to provide some way for weighing that value against the value of other potential uses of the area.

In view of the failure of the two bills to provide some discretion to the Secretary to make judgements as to significance, or to balance the value of a cave resource against other public values in an area, we cannot support enactment of either bill.

On July 23, 1987, we testified before the House Subcommittee on National Parks and Public Lands regarding H.R. 1975. At that time, we said we would not object to enactment if several amendments were made. One amendment would have allowed the Secretary to disturb Federal cave resources where the disturbance would be necessary to meet other multiple use objectives. The second amendment would have deleted the requirement for joint Interior and Agriculture regulations. In addition, we opposed earmarking of receipts from permits, forfeitures, and penalties relating to cave resource management. We also supported the "Savings Provision" amendment recommended by the Secretary of the Interior. The House did not adopt the amendments we recommended, therefore the Administration opposed enactment of the bill when it came on the House floor under suspension of the rules. A legislative report on S. 927, containing these recommendations, was sent to this Committee in November 1987.

While we support the overall purpose of S. 927 and H.R. 1975 to protect Federal cave resources, we have further analyzed the likely effects of these bills. In addition to our primary concern about the lack of Secretarial discretion, we are concerned that these bills would significantly and unreasonably hamper management of the National Forest System. Additionally, our legal counsel has concluded that these bills contain serious legal flaws that must be resolved.

## STATEMENT OF MEG POWER, LEGISLATIVE REPRESENTATIVE, NATIONAL COMMUNITY ACTION FOUNDATION

Mr. Chairman, my name is Meg Power and I am a Legislative Representative of the National Community Action Foundation, which is the Washington representative of the nation's 900 Community Action Agencies. These agencies which are responsible for installing over 80% of the conservation investments provided by the DOE Weatherization Assistance Program are very concerned about holding on to the current services funding level of $168 million for the vital DOE low income Weatherization Assistance Program, which was assured in the House and Senate Budget Resolutions.

Your efforts for our low income clients, have maintained the Weatherization Program despite continuous Administration attacks. This is deeply appreciated by the millions of needy Americans who have seen their bills go down and their physical comfort increase.

Mr. Chairman, the housing stock our agencies are mandated to improve in West Virginia, Louisiana, Arkansas, and New Hampshire for example, is an old and unstable resource. When we invest about $1,600 of conservation improvements we are reducing shelter costs, prolonging the useful life of the building, and preserving our low income housing stock as well as reducing energy use.

It is important for the Subcommittee to recognize that the DOE Program is now the engine that drives a large national effort fueled by a blend of oil overcharge, LIHEAP Block Grant, as well as DOE funding. It is essential that it be continued as a strong and vital mechanism, or the resources from these other sources cannot be harnessed into a sound program.

We can now estimate the current effort at $500 to $600 million a year nationally, with a concentration of these funds in those 21 states that decided to spend a large portion of oil overcharge funding on low income conservation programs. Several States represented on this subcommittee, including Arizona, Vermont, Idaho, Alaska, and Utah are such states.

But of course, the 'PVE' funding source represents a one-time event and will be generally expended by 1990-91. Surveys by the National Consumer Law Center show about half the funds distributed under the Exxon decision and one fifth of those from the Stripper Well decision were put to use for low income households. About $475 million has been allocated directly to DOE/WAP and a good deal more to similar purposes under the LIHEAP block grant conservation activities.

Most states have had some additional funding through the Energy Assistance Block Grant and this, too, is a declining source. Because of LIHEAP cutbacks, planned Weatherization activity is being curtailed this year to pay fuel suppliers instead in Alaska, New Hampshire, North Dakota, Oklahoma, and Vermont among other states.

In other words Mr. Chairman, we are in a period in which some states have a short time to invest a reasonable level of resources in an effective effort to make a dent on energy use by the poor. But in two or three years, we face lean times with most of the need still unmet.

Weatherization has matured into a sophisticated and cost effective operation. New technology like infrared scanning and lap-top computer software is updating our energy audit methods and identifying the highest payback investments. 20,000 - 30,000 person-years are employed by the program yearly, in the form of thoroughly trained crews, many of whom have attended class hours and on-site formal training and certification courses. New heating system hardware is being introduced to upgrade the major source of energy efficiency losses - the house furnace, and DOE rules are slowly but surely expanding the technical and material options for the weatherization team.

Mr. Chairman, many of our clients have been on waiting lists a long time. For the elderly poor who are our priority, patience is a lot to ask. The need is so great that even the addition of all these new resources means we have cut the time for upgrading this housing stock from 50 years to just under 30. We hope your Subcommittee will continue its unswerving support and keep the DOE program, on which all other low income investment activities depend, at least at its current services level. Thank you for your time and support.

## STATEMENT OF THE COUNCIL OF ENERGY RESOURCE TRIBES

The Council of Energy Resource Tribes is a membership organization composed of 43 federally recognized Indian tribes representing over one-half of all reservation Indians, and some 60% of all reservation lands in the United States. The CERT organization is actively managed by a board of directors composed of the principal, elected, executive officers of the member tribes. In recent years, this Committee has directed the Bureau to contract with this tribal organization via an inter-agency contract that is administered by the U.S. Department of Energy. For Fiscal Year 1989, the Bureau has once again declined to request appropriations for the purpose of contracting with this tribal organization. The Council of Energy Resource Tribes is once again respectfully requesting this Committee to direct the Bureau to continue to contract with our organization by the mechanism of the inter-agency contract administered by the U.S. Department of Energy.

Of the more than $8 million which the Bureau has requested for minerals and mining activities, virtually none of those funds will otherwise be available for Indian tribes and allottees to protect their own interests in many of the most vital issues they will face during Fiscal Year 1989. This is so for the simple reason that the Bureau, both historically and institutionally, is incapable of representing the interests of Indian mineral owners in the design and operation of other Interior Department agencies' programs, where the bulk of the administration of Indian mineral properties occurs.

A few examples should suffice to make this point clear. When the Department reversed its earlier position in January, 1987, and proposed to modify retroactively NTL-5, regarding accounting for natural gas from the period 1982-1986, the Bureau advised Indian mineral owners that the decision was a Departmental one, and, thus, the Bureau had no choice but to support the proposal. Working with our CERT staff, however, we were able to negotiate with MMS, industry, and state officials a reasonable agreement that not only provided most of the relief the Secretary had proposed to grant industry, but also preserved the rights of Indian mineral owners to receive accurate and timely audit information, and to pursue any additional remedies they may have in court. In December, 1987, Congress enacted this negotiated agreement into law. This agreement, which is acceptable to all parties, and which the Bureau could not help us achieve, preserves the important principle that the Secretary cannot unilaterally change the rules regarding monies due for past production, and preserves the right of Indian mineral owners to enforce vested rights if circumstances warrant.

Similarly, when the Minerals Management Service sought for nearly three years to promulgate product valuation regulations for oil and gas produced from federal and Indian lands, the Bureau failed to produce a single employee who fully understood the proposed rules. With our staff at CERT, we were able to negotiate among member tribes, affected allottee associations, and non-member oil and gas tribes a unified Indian position, which, in turn, we successfully negotiated with MMS and industry. The result is a set of rules which the Department concedes is much improved, even for the administration of federal properties. The result of this effort will be worth millions of dollars per year to both federal and tribal treasuries.

A final example is even more stark. In 1982, Congress enacted the Indian Mineral Development Act of 1982, and directed the Secretary to promulgate regulations within 180 days to implement that Act. Not until December, 1987, did the Bureau adopt final rules to implement this important legislation; and even then, the result was so unacceptable both to Indian tribes and to the Congress that the Bureau lifted the rules a month later, in January, 1988. By use of our common staff at CERT, a great deal of expense and duplication of effort has been avoided in disseminating information, coalescing views, and developing commonly accepted tribal positions on the major issues surrounding this rulemaking. We simply cannot depend on the Bureau to develop in a vacuum, as the agency is inclined to do, such important and far-reaching policies.

On another front, we would like to point out that much of the work which we accomplish through our CERT organization is simply not available from the BIA. A few examples here should make this point as well. On behalf of one of our member tribes, our CERT staff recently conducted the accounting work that enabled the tribe to reach a negotiated settlement of $4.1 million in tax rebates. This money, to which the tribe was clearly entitled, would never have been recovered if the tribe had to depend on the BIA, MMS, or BLM, the three Interior Department agencies charged with administering Indian oil and gas properties.

Another member tribe recently concluded negotiations for a significant wildcat play by a major oil company. These negotiations were conducted over a period of two years, including 1986, the single worst year in the history of the oil and gas industry in terms of price collapse, and began with selective distribution of an oil and gas prospectus developed by our staff at CERT. Even if no production is developed, this agreement will result in the single largest resource-based revenue source this tribe has known. Here, too, the BIA simply does not provide this kind of service to mineral-owning tribes or individuals.

Yet another member tribe, with assistance from our CERT staff, has recently concluded negotiations for reclamation of what was the world's largest open-pit uranium mine. This agreement not only provides more than $40 million in cash, but some $10 million more in equipment and improvements and, equally importantly, will provide years of employment for many of the more than 800 miners who were put out of work when the mine closed. Throughout these negotiations, the Bureau's principal concern was not the interests of the tribe, but its own potential liability. Thus, if the tribe had left this matter to the Bureau, the agency would have negotiated unilaterally with the company for a third-party contractor to perform the work, and a significant opportunity not only for immediate employment, but for the development of marketable skills by tribal members would have been foregone.

This Committee will note as well that the Bureau's proposed budget for both Minerals and Mining and for Environmental Services reflects hardly any recognition of any relationship between these two important activities. Hence, the Bureau is ill-equipped to provide tribes with assistance regarding oil field waste, brine disposal, surface mining reclamation oversight, air quality monitoring or control, groundwater contamination, or any of the other environmental issues that attend responsible energy or mineral resource development. Our CERT staff has in recent years developed considerable capability in these areas, and has provided invaluable assistance to member tribes in negotiating resolution of problems in these areas.

In fact, the U.S. Environmental Protection Agency is another contributor to the inter-agency contract administered by the Department of Energy, through which the Bureau has historically contracted with our organization. EPA has, in fact, designated our CERT organization as a National Environmental Resource Center for air quality programs.

This points up another of the unique advantages of our multi-tribal CERT organization. Far too often, the Army Corps of Engineers; the Energy Department's Regional Power Administrations; the Bureau of Reclamation; the U.S. Geological Survey; the Minerals Management Service; the Bureau of Land Management; the Bureau of Indian Affairs; the Office of Surface Mining Enforcement and Reclamation; and the Environmental Protection Agency do not communicate with each other. Yet, all of their activities come together on our land.

The prodigious rulemaking, the negotiations with and among these agencies, and the successful coordination of these agencies' activities rests ultimately with the tribes themselves if their interests are to be represented and protected. Not all our member tribes by any means can afford to maintain the staff of geologists, hydrologists, economists, accountants, attorneys, and environmental scientists that are required to deal with the programs of these agencies as they affect our lands and our communities. Nor should they be required to duplicate such efforts where economies of scale are possible. We believe that our CERT organization represents such an economy of scale, and that, through our multi-tribal efforts within this organization, we have often succeeded in effecting a coordination of government programs that the government itself has failed to achieve.

Two examples here should make this point clear. One of our coal producing tribes, in overseeing the activities of one mine, must

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## STATEMENT OF RINDY O'BRIEN, DIRECTOR OF GOVERNMENTAL AFFAIRS, THE WILDERNESS SOCIETY

Mr. Chairman, I am Rindy O'Brien, Director of Governmental Affairs at The Wilderness Society. I am pleased to be able to offer this testimony on behalf of the Society's 215,000 members.

Since it was founded over fifty years ago, The Wilderness Society has focused virtually all of its attention on the protection and wise management of federal lands, including national parks, wildlife refuges, national forests and public lands managed by the Bureau of Land Management. It is the only national environmental organization with such a charter.

On public lands issues, the President's budget makes all the hard choices. And, they are the wrong choices. They are choices that ignore the future needs of our citizens, ignore the expressed desire of Congress and ignore the responsibilities of public stewardship of public resources. This is fiscal folly and environmental disaster wrapped inside bad government.

From the beginning, this administration has failed to exercise its authority to manage our public resources wisely. Instead, we have seen stewardship turn into exploitation. Whether it was doubling revenues from the outer continental shelf, increasing coal leasing in a glutted market or the sales of surplus federal lands, each year's policy gimmick has floundered. The federal budget has not been balanced, but the land has suffered from neglect.

Mr. Chairman, the shift of tax revenues from wise management to commercialization is a careless luxury that we can no longer afford. Our only rational options are to reject privatization and commercial exploitation of our precious public resources in favor of long-range planning, careful stewardship, and protection. Below we offer our recommendations for the fiscal year 1989 Interior Appropriations bill.

## WILDERNESS AND THE BUREAU OF LAND MANAGEMENT

Of particular concern is the Administration's continuing failure to provide adequate funding for resource protection programs, especially for management of wildlife, wilderness, recreation, and cultural resources as well as mining claim regulation and law enforcement. To fulfill the resource protection mandate of the Federal Land Policy and Management Act of 1976 (FLPMA) we recommend the following:

1) Continuation of the existing ban on mineral leasing in wilderness study areas (WSAs). This ban was enacted in the FY '83 Interior Appropriations bill. The continuation of this ban is necessary even though Congress enacted the Federal Onshore Oil, and Gas Leasing Reform Act of 1987 (Subtitle B of the Omnibus Budget Reconciliation Act of 1987). Section 5112 of that act instituted a permanent ban in Forest Service and BLM wilderness study lands on only oil and gas leasing. It is necessary to continue the current ban in Interior Appropriations bills in order to prevent leasing of study areas for coal, oil shale, phosphate, potassium, sulphur, gilsonite and geothermal resources. The existing ban also protects designated wilderness from seismic explosions.

2) For the past several years out of concern over the degradation of BLM wilderness study areas, Congress has directed the Secretary of the Interior to spend specific amounts on protection of WSAs. Again this year, the administration has proposed to cut the amount needed to protect these areas even though the most basic protective measures have not been implemented for all WSAs. For example, the vast majority of WSAs, even years after designation, still are not posted to alert land users that they are entering a protected area. We urge the appropriation of $2.9 million for protection of these areas, including a $500,000 increase for the California Desert Conservation Area. Additionally, we recommend funding to complete the estimated $1 million of WSA reclamation work needed. We also urge Congress to explicitly direct the Secretary to complete this reclamation work.

3) Funding is clearly inadequate to have the Bureau of Land Management complete wilderness management plans for designated areas. We recommend that the Administration be directed to complete management plans for all exisiting designated wilderness no later than FY '89 and that sufficient funding be provided to fully implement all plans.

4) The Administration's proposed increase in recreation funding is still seriously deficient. The FY '88 budget boosted BLM to a total of 41 law enforcement rangers; but this still means that BLM has only one ranger for every 6.6 million acres of land. We recommend FY '89 base funding adequate for management of all special recreation areas and we also believe special direction should be included to provide the needed funding for the newly designated El Malpais National Conservation Area. We also object to the Administration's refusal to treat all of the projected recreation fee receipts as additive to the base program. Recreation fees should not supplant appropriations for the base program.

5) BLM lands are rich in historic and archeological treasures. Most of the lands have not been inventoried for cultural resources. We oppose plans to eliminate funding for cultural resource inventories and recommend an increase so we can complete these inventories in all FY '89 land use plans.

6) We urge you to closely examine the Area of Critical Environmental Concern Program (ACEC) and recommend sufficient funding to ensure prompt protection of ACECs.

7) Provide sufficient funding to complete and implement all habitat management plans as quickly as possible. We also recommend that sufficient funding be provided to implement recovery plans for all threatened and endangered species on BLM lands.

8) Reform the antiquated mining claim system. Valuable hardrock minerals on the public lands continue to be mined without one cent of return to the U.S. taxpayer. A leasing royalty system could bring significant new revenues into the treasury. We urge replacement of the mining claim system with a mineral leasing system based on fair market royalties.

## U.S. FOREST SERVICE

The Wilderness Society believes this is the most damaging Forest Service budget yet submitted by the Reagan Administration. It accelerates the unwise priority this Administration places on commercialization of the national forests while failing once again to respond to environmental needs. We believe major changes must be made in the budget and submit the following recommendations:

- Eliminate unnecessary forest road construction on the national forests by reducing funding by $106 million in FY 1989. Our nation's 156 national forests contain a road network that is eight times larger than the interstate highway system. Totaling more than 350,000 miles, this network is adequate for the multiple use needs of forest management and users alike. We believe the case is clear for a dramatic reduction in Forest Service road-building expenditures. In each of the past five fiscal years, the Forest Service has built or rebuilt more miles of roads than it requested in its annual budget message to Congress. They have failed to explain away the excesses of the

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# STATEMENT OF DAVID C. YAECK, MEMBER, INTERSTATE CONFERENCE ON WATER POLICY

The Interstate Conference on Water Policy (ICWP) is the independent national association of state, interstate and regional water administrators concerned with water quantity and quality management, conservation and development. Since 1959, ICWP has been the voice for state water management concerns, particularly with regard to the relationship between state and federal programs, regulatory authority and information exchange. It is with that background that ICWP offers the following testimony in matters relating to the fiscal Year 1989 appropriations for the operations of the U.S. Geological Survey, long a partner with state, regional and local water interests.

Of particular concern is the impact of the FY 1989 budget request for the water resources programs of USGS which, if implicitly followed would, in our collective view, have a substantial adverse impact on programs and data collection vital to the proper management of the Nation's surface and groundwater resources. Some $14 million is proposed to be cut from the water resources investigations program of USGS under the Administration proposal affecting three distinct areas of interest - the federal program, the federal-state cooperative program and funding under the Water Resources Research At. Each of the three categories fills an important role in the development and maintenance of water resources management efforts through the country.

Of significant concern to ICWP is any reduction in funding levels for the federal-state cooperative program. This working partnership on an equal cost-share basis has long provided the means for development of data collection systems, water resources investigations and studies which have aided immeasurably the effort to reach a better understanding of surface and groundwater issues.

There is currently proposed a reduction of more than two and a half million dollars in the federal commitment to data collection and analysis. Coupled with the local cost-share of this activity, the net reduction in our national data collection effort would top five million dollars. It is important to underline that statistic in light of the basic data necessary to carry on even the most elementary of water resources investigations.

A funding reduction for hydrologic data stations could mean the elimination of 450 to 500 continuous record stream discharge stations on the nation's waterways.

These stations are essential for making planning and management decisions involving use, development, and conservation of the nations' water resources. They are a key factor in assessing the contribution of groundwater to our streams, a working tool in determining drought response activities and are essential to the operation of any meaningful flood warning network.

To amplify still further, the role of these stations in groundwater studies entails the development of data necessary for various mathematical modelling techniques which provide a predictive tool for groundwater flow and contaminant movement. The maintenance of these stations and an unbroken line of data collection becomes even more important as groundwater research activities intensify.

The stream gaging station is also a key element in drought response activities by providing a triggering mechanism for such measures as water use restrictions during periods of extremely low flow.

The record of stream flow, coupled with reservoir storage, groundwater levels and precipitation data combine to provide the water manager with the information required to implement a successful drought management plan.

The need for continuous recording stream gages during flood events is self-evident. With landline and satellite capability, the water resources manager or, in this case, the flood network coordinator, has a real-time view of events along the waterway and rising water levels and is thus able to advise emergency management personnel and affected propertyowners of changing conditions and flood potential.

It is obvious we as water managers need the data generated by these stations and, as the past record shows, are willing to underwrite our share of the cost involved.

The federal program reduction - distinct from the federal-state cooperative program - would also see a cutback in the number of continuous stream discharge stations operated by USGS. The issues raised in earlier testimony on this point would similarly apply to the approximately 80 stations which may have to be discontinued.

Proposed funding reductions would impact the Regional Aquifer System Analysis effort by USGS - a program of definite value to water managers in the involved areas. The studies would be set back in schedule at a time when working knowledge of the hydrogeology in those areas needs to be produced on a timely basis.

The program was initiated in 1978 response to federal and state needs for data and information to support improved groundwater management efforts. As of 1986, 21 RASA projects had been undertaken to define the regional hydrogeology and develop background information - geologic, hydrologic and geochemical - for regional assessment and support of more detailed local studies where indicated.

Impacted by any change in the FY89 schedule would be RASA Phase I investigations of the Gulf Coast Plain, Caribbean Islands, the San Juan Basin in New Mexico and Colorado, Central Texas, Ohio-Indiana Carbonates, Appalchian Valleys and Piedmont, the Alluvial Basin of Southern California and the Puget-Willamette aquifer in Washington and Oregon.

The FY 1989 budget also calls for a two and half million dollar reduction in National Water Resources Research Grants and a 50 percent reduction in the funding level for State Water Resources Research Institutes. The Water Resources Scientific Research Center would be abolished and a substantial reduction experienced in the study of nuclear waste hydrology under the budget proposal.

The Interstate Conference on Water Policy believes these issues and our concerns relating to their continued support merit your consideration. It is the view of ICWP that funding levels currently in place must be maintained in order to carry out the commitment to data collection, programs and investigations currently underway and without which the water resources management efforts of the states might founder.

## STATEMENT OF BILLY CYPRESS, CHAIRMAN, MICCOSUKEE TRIBE OF INDIANS OF FLORIDA

Mr. Chairman, the Miccosukee Tribe of Indians of Florida appreciates the opportunity of providing additional testimony on the budget request of the Bureau of Indian Affairs for FY 1989. In the statement previously filed with the House Appropriations Committee (which is enclosed herewith), we pointed out that the Bureau has failed in the FY 1989 request to include a $50,000 increase for our reservation law enforcement program although the Conference Report on H.J. Res. 395 expressly directed that this increase should continue to be available for our law enforcement program after FY 1988. We request your assistance again in assuring that the Bureau will not attempt to reduce our law enforcement funding level below the amount directed by the Congress when it initially increased our program by $50,000 in FY 1986.

At the time of our presentation to the House Committee, our staff was developing a new proposal for law enforcement services in the 76,800-acre federal Miccosukee Indian Reservation (generally known as the "Alligator Alley Reservation") which was established by Congress in 1982 and the 189,000-acre Leased Area also obtained by the Tribe from the State of Florida in 1982.

That proposal is now completed, and I submit it herewith. The total funding required is $472,930.

The Tribe's existing law enforcement program is designed to provide 24-hour police protection at the Miccosukee tribal community located in the Everglades National Park, forty miles west of Miami on U.S. Highway 41 (the so-called Tamiami Trail Reservation). Ever since the federal reservation was established in 1982 the Tribe has attempted, without success, to obtain financial assistance from the Bureau of Indian Affairs to provide law enforcement protection on the tribal lands at Alligator Alley. However, the Bureau of Indian Affairs has refused to consider any such assistance.

In a letter, dated September 16, 1986 (its last communication to us on the subject) the Bureau rejected the Tribe's claim that there is a need for tribal law enforcement on the Alligator Alley Reservation. Our attorneys responded in a letter dated May 13, 1987 (copy enclosed) in which we answered point-by-point the assertions in the BIA letter. The Bureau has never responded.

In its first 1988 quarterly report to the Bureau, our Tribal Police Department reports the existence of serious criminal activity on the tribal trust lands of the Alligator Alley Reservation (including armed burglary, burglary, grand theft, trespass and illegal fires).

The future tribal plans for economic development at the Interstate 75 interchange within the Alligator Alley Reservation are seriously threatened by the lack of law enforcement on the Reservation. The partner in a joint venture with the Tribe involving the construction and operation of the Interchange Plaza has expressed his concern on numerous occasions that the absence of police patrol will invite robbery, prostitution, drug sales, etc., when the plaza begins operating.

The Congress has provided a federal land base to the Miccosukee Tribe in exchange for the waiver of significant land claims in Florida which the Tribe relinquished under the Florida Indian Land Claims Settlement Act of 1982. Congress provided, as to the 189,000-acre Leased Area that it would be "treated as if such lands constituted a federally-recognized Indian reservation for purposes of determining the eligibility of the Miccosukee Tribe and its members for any federal ... law enforcement over Indians, or any other similar federal program ... ." See 25 U.S.C. § 1745(b).

Yet the federal government has in the last six years taken no steps to assist our Tribe in providing police protection for lives and property on the new Reservation or in the

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## STATEMENT OF WILLIAM L. POWERS, PROFESSOR, CHAIR, NATIONAL ASSOCIATION OF WATER INSTITUTE DIRECTORS

Thank you for the opportunity to testify before this subcommittee on appropriations to fund the Water Resources Research Act of 1984.

I am William L. Powers, Professor of Agronomy and Director of the Nebraska Water Resources Center at the University of Nebraska. My testimony today is on behalf of the National Association of State Universities and Land Grant Colleges (NASULGC), the National Association of Water Institute Directors (NAWID) and the Universities Council on Water Resources (UCOWR), all organizations with which you and the committee are familiar. Collectively these organizations represent most of the universities and colleges of the United States with major programs in water resources research and education. I am chair of NAWID, which represents the 54 Water Centers and Institutes, located in each state or territory. With me here today is Dr. Miguel Medina, Professor of the Department of Civil Engineering, Duke University and President of UCOWR; Dr. William H. Funk, Professor of Environmental Engineering at Washington State University and member of the Board of Directors of UCOWR; and Archie J. McDonnell, Professor of Environmental Engineering at Pennsylvania State University, chair of the Water Resources Committee of NASULGC.

### The Expanding Need for Water Scientists and Technology

Almost every community in the country faces some kind of water-related problem. New technology is needed to protect and manage drinking water supplies at an affordable price. The demand for safe drinking water has been a concern of small towns and large cities. Because of high nitrate concentrations in well water, seven Nebraska towns found it necessary to drill new wells, spending over $1 million in federal and local funds. In New York City the water supply ran so low during the drought of 1984-1985 that police helicopters used infrared scopes to detect illegal lawn watering at night.

In the January issue of U.S. Water News, John H. Sullivan of the American Water Works Association noted that to meet the existing water quality standards, the cost of water may rise from a national average of $150 - $200 per household annually to nearly $1,000 per year in such areas as Boston over the next 10 years.

New technology is needed to manage water quantity and quality in the agricultural and industrial sector. During the past few years, agriculture has been under severe economic stress, yet there is pressure to reduce agriculture's dependency on chemicals to protect the nation's ground and surface water. The Water Newsletter of June 15, 1987 reports that "11 out of 19 chemical compounds, representing 90% of the pesticides sprayed in Ohio, turned up in rainwater". The manufacturing industry is feeling pressure both from competition abroad and the cost of managing water supplies to protect the environment and health of the citizens of the country.

Public awareness and concern for water quality has prompted Congress to pass legislation to protect the nation's water supplies. The House recently passed H.R. 791 which requires the U.S. Environmental Protection Agency to conduct risk assessment analyses on 60 contaminants within 36 months after enactment of the law. The proposed S. 20 and H.R. 963 require that EPA establish groundwater quality criteria for 100 contaminants within 36 months and that states develop a groundwater management strategy. In addition, proposed amendments to the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) of 1972 would require EPA to establish groundwater residue guidance levels for pesticides and could require states to develop programs to prevent surface and groundwater pollution by pesticides having the potential to leach. In addition to the federal requirements resulting from active and proposed legislation, state and local communities are developing their own monitoring and protection programs.

These federal, state and local programs will require new technology and many trained scientists that are not now available. In the May 15, 1987 issue of Groundwater Newsletter, the Office of Technology Assessment noted that 22,000 hazardous waste professionals will be needed by 1995. In an October 1986 report, the American Institute of Chemical Engineers found that a shortage of scientists and engineers trained in hydrogeology and environmental chemistry will hinder efforts to protect groundwater.

Not only will we need more scientists to administer and conduct these programs, but the nation will need more research information on the fate and transport of contaminants as they move to and through the groundwater. Each contaminant differs in the way it moves through the soil into the groundwater. Hydrocarbons, for example, may float on the water; some may sink in the water; some may be held in the soil above the groundwater; some may dissolve and move with the water and some may exist as a vapor in the unsaturated portion of the soil and move independently of the water. Each type of hydrocarbon may degrade at a different rate and all of these processes vary with different soils.

Because of the site specific nature of these problems, it is apparent that we need a cooperative arrangement in which federal, state and local governments join in the research, training, and information dissemination programs. Public water agencies depend on universities not only to graduate water scientists, but also to supply information on the fate and transport of contaminants.

This requires strong support of the university community in training scientists and conducting necessary research.

Although we have used the example of groundwater protection, the case can be made for the necessity of a joint effort at all levels of government to solve other water problems facing the nation.

### Joint Efforts to Meet Expanding Needs for Water Scientists and Technology

An excellent vehicle for meeting the expanding needs for water scientists and new technology is the Water Resources Research Act of 1984. This act authorizes funds for conducting water research, training water scientists, and technology transfer. It is truly a joint effort because the act specifies a non-federal match.

An evaluation of the Water Research Institute Program authorized by Section 104 of the Act was completed this past spring. Each Institute was visited by a review team led by a member of the U.S. Geological Survey. Results indicate that the Section 104 program has been highly successful.

Quoting the summary findings from the U.S. Geological Survey Open-File Report 88-85: "The evaluation teams found that all institutes are meeting the objectives of the authorizing legislation in that they (1) use the grant funds to support research projects that address water problems of State and regional concern; (2) provide opportunities for training of water scientists through student involvement in the projects; and (3) promote the application of the research results through preparation of technical reports and contributions to the technical literature. The most general conclusion that can be drawn from the evaluation is that the institutes as a whole are using the Federal funds in a cost-effective manner by marshaling the resources of the academic community to address important problems identified in cooperation with water interests in the States."

From an examination of the briefing documents prepared by each state institute for the evaluation, we estimate that during the mid-1980's this program provided "hands on" training in water resources for about 300 undergraduate and 600 graduate students each year. It is estimated that over a three-year period (1983-1986) about 450 professional journal articles and 1200 scientific reports were published on water resources research supported by this joint program. Most Institutes publish and distribute an

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## STATEMENT OF JAMES H. SCHLENDER, EXECUTIVE ADMINISTRATOR, GREAT LAKES INDIAN FISH AND WILDLIFE COMMISSION

Mr. Chairman, Members of the Committee, my name is James H. Schlender and I am the Executive Administrator of the Great Lakes Indian Fish and Wildlife Commission (Commission). On behalf of our eleven member tribal governments, I would like to thank you for the opportunity to submit this statement regarding the Bureau of Indian Affairs Fiscal Year 1989 Appropriation request.

The Commission's eleven member tribes have a service population of over 12,000 tribal members and are located in the states of Minnesota, Wisconsin, and Michigan. The organization's purpose is to protect treaty-guaranteed rights to hunt, fish, trap, and gather in the inland territories ceded under the Chippewa Treaties of 1837, 1842, and 1854; to protect treaty-guaranteed fishing rights on the Great Lakes; and to provide co-management of those resources.

The Commission would first like to draw your attention to the fact that the $1.27 million increase approved by both the House and Senate in FY 1988 is not included in the Bureau of Indian Affairs FY 1989 Appropriation request. In order for this amount to be included in the Bureau FY 1990 Appropriation request, a FY 1989 special appropriation is required to maintain current funding levels. It is imperative that current funding levels recently obtained for our Conservation Enforcement Division be maintained.

The continuing necessity for these law enforcement monies was demonstrated during the recently completed Chippewa Indian spring fishing season in Wisconsin. The Commission was able to increase its activities to enforce tribal law, thereby freeing up State Department of Natural Resources wardens to increase their activities to enforce state law against those harassing tribal fishermen.

The Bureau of Indian Affairs has proposed funding these law enforcement activities through the tribal/agency budget process. However, the Bureau does not request that funds be appropriated for that process to meet this acknowledged need. Thus, the only way to continue meeting this need is to fund tribal law enforcement through the Commission at current levels.

The Commission would also like to direct your attention to the problem of restricting the expenditure of Litigation Support funds to specific fiscal years. We request Litigation Support funds be allocated as "no year" (i.e. "X") monies to prevent this problem from recurring in the future. Our member tribes have been faced with the loss of Litigation Support funds simply because the trial schedule in Lac Courte Oreilles, et. al. v. State of Wisconsin, et. al. has not conveniently coincided with the federal fiscal year. It is ludicrous to think that pending litigation of such importance would have to be abandoned under such circumstances and we seek to prevent this from happening.

Under the rulings of Lac Courte Oreilles, et. al. v. State of Wisconsin, et. al., Wisconsin member tribes may regulate tribal off-reservation hunting, fishing and gathering rights provided such regulation protects the natural resources. In carrying out this responsibility, the Commission, on behalf of our Wisconsin member tribes, has drafted a Natural Resource Management Plan for the Northern Wisconsin Ceded Territories--Treaties of 1837 and 1842.

Under this plan, the amount of fish which can be harvested is tied to reliable fish population estimates. We currently cannot afford to conduct these estimates. The Commission is requesting an additional appropriation of $735,124.00 to conduct fish population surveys so that member tribes may honor their commitment to sound resource management. These population surveys will ensure that management decisions affecting over 565,000 acres of Wisconsin waters will be made upon sound and up-to-date biological information.

Recently, a settlement was reached in Grand Portage Band of Chippewas of Lake Superior, et. al. v. State of Minnesota, et. al., a case which involved off-reservation hunting, fishing and gathering rights in the 1854 Treaty ceded territory in Minnesota. Under the settlement, the Grand Portage, Fond du Lac, and Nett Lake Bands will develop, manage and enforce an inter-tribal conservation code which will require funding for wardens, tribal court systems, and biological expertise. We are requesting an appropriation of $802,987 to expand our services into Minnesota to meet this need.

The Commission's FY 89 funding request includes the construction of a 13,000 square foot visitor center/office structure. Our current structure was first built early in this century as a school on the Bad River Reservation and is located within a designated flood plain. Our extreme climate has accustomed us to being typically cold in the winter and hot in the summer while outdoors; however, these same conditions experienced indoors are hardly welcomed. Being a natural resource management institution, we also have an abundance of wildlife in the building--flies, bats, and mice.

The structure's design, overcrowding, lack of storage space, and poor weatherization all combine to hinder the efforts of our staff to increase direct services to our member tribes. The Commission's biological staff must complete all scientific studies in the field without the most basic of laboratory facilities. While some of our staff are copying and binding reports in the hallway, others are attempting to develop film in a basement janitor's closet, with planning services being provided from the biological supply room.

The Great Lakes Indian Fish and Wildlife Commission is requesting a one time appropriation of $1,225,770.00 for the cost of constructing the visitor center/office structure thereby enabling the organization to improve efficiency and minimize the need to incur higher administrative costs in coming years.

I would like to conclude my statement by emphasizing that our total FY 1989 proposed funding request of $5,360,681.00 should be made available for GLIFWC operations and projects, and no portion should be held back by the BIA as has been the case in three previous funding years.

Under separate cover, we have provided the Committee staff with an information package which gives greater background and detail on the Commission and on our funding request. Please contact me at any time if you have questions or need further information.

Thank you.

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## STATEMENT OF JAMES JAIME, CHAIRMAN, QUILEUTE TRIBAL COUNCIL

The Quileute Indian Tribe requests Congressional support in the fiscal year 1989 appropriations for the Bureau of Indian Affairs and Indian Health Service regarding tribally-specific issues and nationwide concerns. Basically, we urge restoration of appropriations targeted for tribal government operations including Small Tribes Core Management, Indian Self-Determination Grants, Contract Support Funds, law enforcement and judicial services, Indian Child Welfare grants, economic development grants, and Housing Improvement programs. Our testimony presented to the House Interior and Related Agencies Appropriations Subcommittee is enclosed for reference.

The Quileute Indian Tribe specifically requests appropriations support for the following issues:

* **Provide $535,000 increase for the Indian Health Service Health Facilities, Sanitation Facilities account to support a LaPush water quality improvement project.**

The water quality at LaPush is so bad that village residents and tribal resort customers purchase bottled water to drink. The water contains a high iron content (12.0 parts/million as compared to 0.3 parts/million or 36 times above standard) as well as high levels of sodium and chlorine. This water quality, which "looks, tastes and smells bad," predominates within a six mile radius of the village. Chemical treatment expenditures by the tribe to improve water quality currently costs an average $3000 monthly.

A clean water source with adequate volume has been located six miles from the village. Access to this water will require construction of two wells, a 25,000 gallon storage tank at the site, piping to the village, and pumping equipment. IHS engineers estimate the total project cost at $535,000. This project would alleviate Tribal expenditures for chemical treatment.

The Quileute Tribe would apppreciate Congressional supprot for this LaPush water quality improvement project. This would require a $535,000 appropriations increase for the Indian Health Service Health Facilities, Sanitation Facilities Activity.

The Quileute Tribe, aggressively seeking economic independence and financial stability, is capitalizing on the tourist market with resorts and associated services. A clean water supply is essential for attracting tourists to beautiful LaPush.

- **Restore the administration's proposed $2 million reduction for BIA law enforcement, increase and earmark $205,000 for Quileute Tribal law enforcement as well as $50,000 for judicial services due to recent retrocession ofjurisdiction by Washington State**

The Quileute Indian Tribe has supported a part-time law enforcement officer over the last several years to maintain a semblance of law and order on our reservation, especially during the Summer months' extensive tourist traffic. On March 18, 1988 Governor Booth Gardner signed legislation returning civil and criminal jurisidiction to the Quileute Tribe. The Tribe needs to establish a capable law enforcement operation and justice system for reservation residents and visitors.

We are particularly concerned over the administration's proposed $2 million reduction for BIA law enforcement in FY89. We request Congressional restoration of BIA law enforcement appropriations and an increase of $205,000 for Quileute law enforcement and $50,000 for judicial services to be built into the Tribe/Agency base appropriations. Basic police protection and an effective justice system are essential tribal government functions.

- **The Quileute fisheries is the primary resource for the tribal economy and specific program appropriations increases are needed to improve management and enhancement capabilities**

The fisheries resource is the sole basis of the Tribal economy providing employment through the LaPush port, fish docks, fisheries plant, fisheries program activities, and the commercial/ recreational catch industries. Specific fisheries appropriation needs include:

1) An increase of $80,000 to the Quileute fisheries management base for tribal involvement in State, regional, and international management forums serving both tribal and non-Indian interests due to the strategic importances of the Quillayute River system to Pacific fisheries management

2) A provision of $300,000 from the BIA Construction account to build a new fisheries management facility as the current facility has, aged beyond repair and renovation options.

3) Restore the $1.5 million hatcheries rehabilitation appropriation to assist the tribe

    a) triple on-reservation Lonesome Creek hatchery production with a one-time renovation cost of $166,000

    b) Expand the off-reservation Eagle Creek rearing pond capacity at a one-time Federal renovation cost of $50,000 to match a $250,000 commitment from Washington State

4) Restore and maintain the tribal hatcheries cyclical maintenance program

5) Establish tribal wildlife management capacity with a $60,000 program increase to support a biologist and technician to assist the Tribe in managing deer, elk, bears, and other wildlife

6) Restore US-Canada appropriations to the FY88 level of $2.443 million to assist the twenty Pacific Northwest tribe's involvement in the policy and management forums and consider a $136,000 increase for this important initiative

7) Restore the Timber-Fish-Wildlife appropriation to the FY88 level of $2 million

*** Allow BIA Area Offices to Approve Tribal Attorney Contracts**

We request report language to direct the BIA to authorize Area level approval of tribal attorney contracts. The delays created by Central Office Solicitor approval are creating extensive management difficulties for Tribal governments.

We appreciate your consideration of our expressed requests and concerns.

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## STATEMENT OF MELVIN R. SAMPSON, CHAIRMAN, YAKIMA TRIBAL COUNCIL

Mr. Chairman, Honored Committee Members, I am Melvin R. Sampson, Chairman of the Yakima Tribal Council. I want to extend my appreciation to you in allowing us this opportunity to submit our testimony.

The Yakima Indian Nation, a treaty tribe, is located in south central Washington State on approximately 1.3 million acres, thus we have one of the largest reservations in the United States.

Our concerns and requests in priority order are as follows:

### TRIBAL LAW AND JUSTICE FACILITIES

One of the principal concerns of the Yakima Indian Nation is our inadequate court and jail facilities. Funding is requested for pre-planning which will ultimately lead to the construction of a new law and justice building to accommodate the tribal court and jail facilities. The existing tribal court building is a small wood structure which has a makeshift addition with an attached trailer as supplemental space for court personnel. The criminal, civil and juvenile case load has steadily increased and will dramatically increase this year and subsequent years. This is due to amendments being made to the tribal code, increased enforcement relative to the Columbia River Management Plan, jurisdictional pronouncements of the U.S. Supreme Court, tribal self-regulatory status, and declination from the U.S Attorney's Office on felony cases. The Yakima Indian Nation has made it a priority to enhance the effectiveness and efficiency of our tribal court in order to administer fair and equal justice for Indian and non-Indian alike. Our tribal court must be prepared to process a multitude of complex subject matter and jurisdictional issues involving natural resources, land use regulations, management, tribal economic development matters, major crimes, child abuse and neglect cases and other controversies which may arise as we proceed to exercise self-determination.

In conjunction with a new tribal court facility, the Yakima Indian Nation needs a new jail facility. The existing facility is wholly inadequate to handle the existing prisoners which are presently incarcerated and the potential increase which is anticipated by the tribal government. The existing facility does not have the physical plant, staffing and support services necessary for long term incarceration. It can only hold 38 inmates for a short duration. This includes 22 adult prisoners and 16 juveniles. Due to recent legislation and the amended Tribal Code, there will be an increased inmate population serving longer sentences.

The juvenile section is inadequately constructed to meet safety requirements or for the benefit of good supervision. It was designed as a group area, the same as the adult holding section, which is not effective in secluding and separating the different types of offenders and age group of juvenile offenders. Moreover, the juvenile and women's sections lack privacy which is subject to staff traffic throughout the day and are left alone during the night except for detention personnel's thirty-minute periodic checks and electronic surveillance. Mr. Chairman, because of these inadequacies, we therefore request that the committee authorize an appropriation in the amount of $75,000 for the purpose of obtaining the services of an engineer and consultant to more specifically assess the need for a law and justice building and provide the tribe with a proposal for the construction of the facility.

## LAW ENFORCEMENT

The Yakima Indian Law Enforcement Program, under our PL 93-638 contract, requires special enforcement responsibilities. The Yakima Indian Nation is exercising more responsibility in the law enforcement area and time requests additional funding. The Yakima Indian Nation is responsible to provide enforcement services which encompass 1.3 million acres of land with a total population of approximately 30,000. This does not include the off reservation treaty areas designated as usual and accustomed fishing sites nor does it include the closed area of the Yakima Indian Reservation. Four game wardens are assigned with the direct responsibility to enforce laws which protect the natural resources, fisheries, and wildlife. Four officers are entirely inadequate to effectively implement self-regulation and self-determination in conjunction with applicable federal court orders. The Yakima Indian Nation is requesting $792,059 which represents an addition to the existing banded amount for the Law Enforcement Program.

## NATURAL RESOURCES

### Water Resources:

The Yakima Indian is facing major litigation concerning treaty reserved water rights. The waters of the Yakima River have been over appropriated and, in addition, the region is currently experiencing an extended drought of unprecedented proportions. The only realistic long-term solution to our water supply problems is a physical one. The Bureau of Reclamation's Yakima River Basin Water Enhancement Project would allow development of water resources both on and off the reservation.

The Yakima Indian Nation's other major water-related concerns are the protection of water quality and effective management of our ground-water resources. Although recent amendments to the Clean Water Act and the Safe Drinking Water Act allow Indian tribes to be treated as states, funding available to tribes is not adequate to accomplish the goals and objectives of these programs. The ground-water resources of the Yakima Indian Nation have been increasingly exploited in recent years due to water shortages and expanding development. We are in need of appropriated funds to assist us in developing a comprehensive management plan to protect this valuable resource.

To accomplish our goals and objectives in these areas we are requesting funds to be banded for water resources under PL 93-638 in the amount of $350,000 annually to adequately staff and operate a water resource planning and management program for the Yakima Indian Nation. In addition, we have submitted a proposal to the Bureau of Indian Affairs for funds totalling 1.73 million dollars over a four-year period for required studies leading to the development of a comprehensive ground-water management plan. We appeal to you to make these funds available to us for the protection and management of our most valuable water resources.

### Wildlife Resources

The wildlife resources is an integral component of tribal cultural and traditional lifestyles that provides a natural food source for many tribal members. Protection and management of wildlife under tribal jurisdiction is crucial to prevent erosion to tribal sovereignty. The additional strains on our limited staff have surfaced as the tribe assumes an expanded role in wildlife planning and inter-agency liaison and cooperation in the ceded area.

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## STATEMENT OF THE CONFEDERATED SALISH AND KOOTENAI TRIBES OF THE FLATHEAD RESERVATION

The Confederated Salish and Kootenai Tribes are pleased to submit testimony to the Senate Appropriations Subcommittee on the Interior for the Fiscal Year 1989 Bureau of Indian Affairs Budget.

Our testimony is the product of a very long and difficult process which started with the identification of a very broad range of needs which have been prioritized and reprioritized in order to arrive at the following two essential needs; Self-Determination Contract funding short falls, and Water Management.

In 1989, the Confederated Salish and Kootenai Tribes intend to initiate a new and innovative program for the Flathead Reservation: the CS & KT Water Management Program.

The foundation for this program will be a water monitoring network consisting of approximately 25 surface water gauging stations and a groundwater monitoring network of approximately 70 wells. This network will provide crucial technical data for Reservation water management. The framework for this water management program will be the development and adoption of a Tribal Water Use Management Plan. This plan would provide for the efficient and beneficial use of water in a manner that discourages waste and facilitates a sound Reservation economy and which is sensitive to environmental concerns.

The Tribes plan to initiate a Reservation-wide water quality study as a component to the Water Management Program. The water quality study would develop essential baseline data necessary for establishment of minimum water quality standards. At present, the Reservation is faced with some serious water quality problems caused by, among other things, polluted irrigation return flows and commercial and residential development. Any Reservation water management program would be incomplete without including water quality considerations within its scope. Maintenance and improvement of Reservation water quality is necessary to protect the Tribal homeland, to protect public health and welfare, to protect Reservation fisheries, and to encourage economic activity that is dependent upon a high quality of life on the Reservation.

Finally, the 1989 funding request would also complete data analysis and report preparation for two ongoing studies initiated in 1986 and 1987, respectively, by the existing Water Resources Program: (1) the non-Flathead Indian Irrigation Project irrigation water use study, and (2) the irrigation peripheral study. These two studies are discussed in more detail below.

To say the least, water management is a tremendously important issue on the Flathead Reservation. It is a major stepping stone to Tribal self-determination and economic development. The Flathead Indian Irrigation Project (FIIP), sited on the Reservation, is the largest federal Indian irrigation project in the State of Montana. Moreover, scores of fresh water mountain streams flow west from the Mission Mountains. Most of these, including the Jocko River, support wild trout fisheries expressly reserved by the Tribes in the 1855 Treaty of Hellgate.

The total cost of the initial year for this new CS & KT Water Management Program will be approximately $387,000. This amount represents a reduction, by about 50%, of the total amount (Tribal and federal funding) spent annually from 1982 through 1988 for sponsorship of the existing Water Resources Program. Beginning in 1990, the Tribes will be working within the BIA budget structure to attain annual banded funds of approximately $250,000 (a 35% reduction from our FY 1989 request), to support the ongoing Water Management Program we seek to initiate in 1989. This funding would support a host of water management program activities that would include, but not by way of limitation, the following: support of water rights negotiations now underway between the Tribes and the Montana Reserved Water Rights Compact Commission; evaluation of the groundwater system, including the inter-relationship between groundwater and surface water on the Reservation; fishery resource protection; economic development; Tribal homeland preservation; cultural resource protection; land use planning; and water quality protection and improvement.

The proposed 1989 CS & KT Water Management Program is the logical follow-up to the CS & KT Water Resources Program which the Tribes have sponsored from 1982 through 1988. Established by the Tribal Council in 1982 due to the failure of the Bureau of Indian Affairs to initiate these studies on behalf of the Tribes, the Water Resource Program had three major components. The first component consisted of a surface and groundwater inventory wherein data was collected and analyzed for the purpose of determining quality and availability of naturally occurring waters of the Flathead Reservation. The inventory included a network of monitoring wells and surface water gauges strategically located throughout the Reservation. The second component consisted of the identification of non-FIIP irrigation uses on the Reservation. This study included field checking private water uses for accuracy and use. The third major component of the existing program was the determination of the quantity of water consumed within the delivery area of FIIP. This latter study, the peripheral study, determined the quantity of water consumed within the FIIP delivery area by gaging the inflows and outflows of the water to the FIIP system. The water inventory study is anticipated to be completed in 1988; however, data analysis and report preparation on the non-FIIP irrigation use study and the peripheral study will be a 1989 activity.

The Confederated Salish and Kootenai Tribes respectfully request funding in the amount of $387,000 for FY 1989 to allow us to commence this critically needed and innovative water management program.

SELF-DETERMINATION CONTRACTS

Since the enactment of the Indian Self-Determination Act approximately twelve years ago, the Confederated Salish and Kootenai Tribes have contracted from the Bureau of Indian Affairs certain programs essential to providing a Tribal Government responsive to the needs of its member ship. The most critical of these programs include Tribal Court, Tribal Police and Indian Child Protection Services.

Over the years, we have watched the funding levels of these essential services fall further and further behind what is needed to provide an acceptable service to our member ship. As a result, we have been forced to appropriate from limited Tribal funds more and more each year to maintain only a basic service level. Examples of this are as follows:

Tribal Court - Fundamental to any government is its judicial system. Our Tribal Court requires a minimum funding level of $150,000 annually to remain viable. The Self-Determination Contract funding provides only one-third of this need. We must appropriate annually from Tribal funds $100,000 in order to have a Tribal judicial system.

Tribal Police - In order for Tribal Government to be effective, its laws must be enforced. Throughout our Reservation, this requires $675,000 annually. From our BIA 93-638 Contract we receive $335,000; leaving our Tribal Government little choice but to appropriate, as we do now, an additional $320,000 annually to provide adequate Police Protection.

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## STATEMENT OF THE SENECA NATION

Summary. The Seneca Nation has a severe water quality problem on the Cattaraugus Reservation. Due to dangerously high levels of barium and sodium, the water is unsafe to drink. The Nation is seeking $6.5 million for construction of a pipeline and water distribution system to carry good quality water from the Erie County Water Authority to approximately 600 homes on the Reservation. This project is strongly supported by both the Indian Health Service and the Environmental Protection Agency. The funds would come from the "sanitation facilities" category of the Indian Health Service budget. The project could be funded over either two or three fiscal years.

The water quality problem. In 1985, pursuant to a contract with the Seneca Nation Health Department, a New York engineering firm performed a water quality study on the Cattaraugus Reservation. The study demonstrated that the water on the Reservation, which is derived from individual and community wells, is unsafe for human consumption due to high levels of barium and sodium. The study also showed coliform bacteria levels in excess of recommended contamination levels.

The barium comes from the bedrock through which the wells are drilled. According to the EPA's national primary drinking water regulations, the maximum safe level of barium is 1.0 mg. per liter. The levels on the Cattaraugus Reservation range up to 64.90 mg. per liter -- the highest levels recorded anywhere in the world from a natural ground water system.

The American Heart Association recommends 20 mg. per liter as the highest safe level for sodium in drinking water. Levels on the Cattaraugus Reservation range up to 291 mg. per liter.

Scientific studies have demonstrated the role of barium in the development of hypertensive, cardiovascular, cerebrovascular, and renal diseases. In addition, it has long been recognized that high levels of sodium in drinking water produce high blood pressure. Coliform bacteria cause a variety of diseases of the digestive tract, including amebic dysentery and hepatitis A.

Based on its analysis of health care statistics on the Reservation from 1978 through 1985, the water quality study concluded that "the Reservation population suffers from inordinately high rates of hypertension, peripheral vascular disease, cardiovascular disease, diabetes and peripheral neuropathy." The study estimated that 90 percent of Cattaraugus residents suffer hypertensive effects from the barium alone. The study also reported frequent cases of amebic dysentery, campylobacter fetus gastroenteritis, giardia lamblia infections, both acute and chronic, and hepatitis A. According to the study, these problems were "certainly related" to poor quality drinking water.

Support from federal agencies. The Indian Health Service is extremely concerned about this situation. The Nashville Area Office has ranked water improvement on the Cattaraugus Reservation as its number one priority sanitation project, out of about sixty-five such projects. In FY 1988, Congress appropriated $5 million for IHS sanitation projects for existing homes. The Nashville office has worked to secure a substantial portion of this amount, for the express purpose of assisting the Seneca Nation with water improvement. A letter from the Nashville area director to Dr. Everett Rhoades, Director of the Indian Health Service, is appended as Attachment A.

The Environmental Protection Agency has conducted its own investigation of water quality on the Cattaraugus Reservation. It strongly supports the proposed water quality improvement project. We append a letter of support from EPA as Attachment B.

The water quality improvement project. The water quality study included extensive analysis of the alternatives for improving the Nation's water supply. It concluded that water from a source other than the existing wells, which yield the contaminated water, must be obtained. In accord with the study's recommendations, the Nation is seeking to participate in a two-phase water quality improvement project.

The first phase consists of construction of a pipeline, jointly with three nearby towns, to carry water from the Erie County Water Authority to the Cattaraugus Reservation and the three towns. This is excellent quality water which is treated by a nearby state-of-the-art facility. The Seneca's share of the pipeline construction cost, at least part of which it hopes to finance through IHS and CDBG funds available in FY 1988, is $748,000.

The second phase of the project is construction of a water distribution system to carry the water from the pipeline to individual homes on the Cattaraugus Reservation. The total cost of this phase is $5.752 million. This includes construction of transmission waterlines, pump stations with pressure tanks, a 250,000 gallon elevated storage tank, engineering services, water line service, and abandonment of existing wells. This amount includes a modest sum for renovation of two existing wells with a high quality water supply which would serve as a back-up source of water for Reservation residents -- highly recommended by the engineers. The funds for construction of the pipeline bring the total to $6.5 million.

Phased funding approach for the project. It would be difficult, if not impossible, for the Nation to expend the entire $6.5 million in one year. Accordingly, the Nation has attached a cost breakdown of the project that divides the project into three phases. The Nation could expend the funds required for the first two phases -- a total of $4.109 million -- in one fiscal year, and expend the remaining $2.391 million in the next fiscal year. This is the preferred funding method. In the alternative, Congress could fund the project in three phases -- $2.465 million in FY 1988, $1.644 million in FY 1989, and $2.391 million in FY 1990. A cost breakdown of the three phases, furnished by the engineering firm that performed the water quality study, is appended as Attachment C. Attachment D compares the two and three fiscal year alternatives.

The Seneca Nation greatly appreciates your support for this water quality improvement project, which is vital to the health of the Nation's members.

## STATEMENT OF BERNARD S. LEE, PRESIDENT, INSTITUTE OF GAS TECHNOLOGY

This testimony proposes recommendations to FY'89 Appropriations for the Department of Energy non-nuclear programs. Specific requests are:

- $8.5 million to continue design, development, and testing of the innovative IMHEX molten carbonate fuel cell stacks, under an existing DOE contract.
- $1.5 million to continue development of the contaminant resistant molten carbonate fuel cell.
- $1.0 million to further develop and scale-up the Advanced Alternate Planar Geometry Solid oxide fuel cell, and $0.5 million to continue development of the Solid State Proton Conductor fuel cell.
- $1.0 million for continued development of an advanced mild gasification process.
- $0.5 million for development of the TADCO Microbial coal gasification process in a co-funded program with Gas Research Institute.
- $2.5 million for a co-funded research program with the State of Illinois to prove operation of an as agglomerating coal gasifier with limestone addition up to 500psig.

- $2.5 million for research on the ATCCO advanced two state coal combustor.
- $1.5 million for development, construction and testing of a prototype gas-fired, Hyperabsorption cycle heat pump.
- $1.6 million to further develop the VE-Gas Absorption Storage System for natural gas bus and truck fleets.

Mr. Chairman and Members of the Subcommittee:

As president of the Institute of Gas Technology, I feel I can bring you a unique perspective on energy, different from that of an energy producer, consumer, regulator, or policymaker. I like to think of IGT's role as that of a performer of research which serves as a bridge to enable technology to move from fundamental development to the marketplace.

As a not-for-profit organization, totally dedicated to hands-on, experimental work from test tube to commercial application, we think that a balanced distribution of funding across the entire research and development process is crucial. Few would plan a new highway for both sides of a river without allocating sufficient funds for a connecting bridge: The effectiveness of a research program will be undermined if promising programs identified by fundamental research are left to die before industry has enough information to judge the commercial applicability of the ideas.

Since I testified a year ago, the energy situation has not improved overall. Although oil prices have recovered somewhat from their 1986 free fall, domestic production continues to decline. Last year, the Office of Technology Assessment warned that, if prices stayed in the $12-$18/bbl range, domestic production would be likely to drop from 9 million bbl/day in 1985 to 6-7 million bbl by 1990. Meanwhile, imports continue their steady rise, accounting for 44% of our present oil supply.

Last year, the U.S. spent an estimated $50 billion on oil imports, almost a third of the country's trade deficit. Although this makes oil imports the second largest single import expense after automobiles, most forecasts indicate that oil imports are likely to regain first place soon, regardless of the trend in oil prices. Ultimately, our growing dependence could allow OPEC to regain power in the oil market to affect U.S. economic stability and national security.

A strong and balanced energy research program is a nation's insurance policy against the vagaries of the free market and the whims of those who can withhold supply to achieve political objectives. The technologies that emerge from a sustained energy research program can help to reduce our vulnerability to external threats, both economic and military, reduce domestic costs of energy, provide industry with the energy it needs to compete in future world markets, and help the country achieve a reasonable balance of trade.

In general, countries that have devoted a larger share of their resources to non-defense research and development have experienced more rapid economic growth. A lagging economy must purchase research and development from others; a leading economy can produce its own technologies to achieve world leadership. This is equally true of energy RD&D - an area where this nation is rapidly losing the lead it once enjoyed. In 1986, for the first time, Japan surpassed the United States in its government expenditures on energy RD&D. In terms of government RD&D spending as a percentage of Gross Domestic Product, the U.S. is in tenth place. Such inattention to our country's energy future must be corrected to avoid disaster.

To some, energy is no more than another commodity to be traded, like gold, cotton or wheat. As such, it should be left to the market to determine its value.

I do not subscribe to this simplistic view. I believe that energy is special. It is not like gold, cotton or wheat. Energy is the fundamental driving force for human advancement, and the foundation of an industrialized society. Thus, while we can do without gold, by using other decorative materials, or cotton, by using synthetic fibers, or wheat, by eating other grains, we cannot do without energy.

No major industrial nation can long survive, let alone prosper, primarily as a distributor or consumer of products manufactured elsewhere. A reasonable amount of service and international trade is desirable and beneficial. But, without an adequate manufacturing base, there would be no foundation on which to support the service industry; and without energy, there cannot be a broad manufacturing base. A primarily service-oriented economy is not an option for any major power that influences the world economy and participates in maintaining a free world. Once it is accepted that energy transcends the market, goals must be defined to achieve energy security as a basic public necessity.

We must understand that energy is not a commodity, but a national priority, like health, environment, and defense, and that the necessary support for R&D, particularly in the long-term supply of energy, must come from the public sector.

In its recent report, "R&D Initiatives for Energy Competitiveness," DOE's Energy Research Advisory Board argues that the effective use of energy in a country's economy is an important determinant of its international competitiveness. This includes its performance in reducing energy intensity and oil use, diversifying energy sources, and promoting new energy technologies. ERAB claims it is in these areas that other nations are outperforming the U.S., thereby gaining a competitive advantage.

The reason is not that the U.S. lacks the technology necessary to enhance its energy competitiveness nor is incapable of developing new technologies. The chief obstacle is uncertainty, both in the marketplace and in government policy. R&D policy presents special problems, because the risks inherent in it are imperfectly dealt with by capital markets, "R&D investment tends to be less attractive than other forms of investment because R&D's product is innovation, the benefit of which is usually very difficult to retain completely within the innovating organization," says ERAB.

And while energy R&D can help to mitigate the effects of an oil supply disruption or the threat of disruption, the private sector has little economic incentive to conduct energy R&D. Thus, the government has a critical role to play both in supporting R&D and in developing the institutional framework that will encourage industry to do so. "We believe that the national interest would be served by a faster pace of development and deployment of energy technology," is ERAB's conclusion.

This does not mean we should take a shotgun approach to energy R&D funding nor effect a repetition of past swings from indifference to crash programs. A successful national energy R&D program requires commitment and discipline: commitment by the government to provide appropriate levels of funding, and discipline by the R&D community to translate that commitment into an orderly execution of the development plan.

In a sensibly planned energy future, I see a need for research beyond what is proposed by DOE for funding in FY'89, and I support the gas industry's budget recommendation of $114.35 million.

Thank you for the opportunity to testify. I will be happy to answer any questions.

## STATEMENT OF H. BRYAN MITCHELL, VIRGINIA STATE HISTORIC PRESERVATION OFFICER, NATIONAL CONFERENCE OF STATE HISTORIC PRESERVATION OFFICERS

My name is Bryan Mitchell. I am the State Historic Preservation Officer for the Commonwealth of Virginia, and I serve on the Executive Committee of the National Conference of State Historic Preservation Officers. I would like to speak on behalf of that Conference to advocate an idea that is quite simple, really, but an idea which in the context of our existence over the last several years might appear quite radical: the Congress should appropriate to the Historic Preservation Fund in fiscal year 1989 that amount it has already authorized as the Fund's annual income, $150 million.

In the years following the Fund's precipitous drop in appropriation level from its high of $60 million down to the mid-$20 millions, and in the face of this Administration's annual recommendation for no funding, we preservationists cautiously appeared before you and asked merely to be kept in existence -- to be given "level funding." We knew at the time, and I trust you also knew, that those requests bore no relationship to this country's preservation needs. Instead, they were based on defensive, political calculations to determine the amount we thought you might safely agree to in hard times. Our greatest sin, we thought, would have been to appear unrealistic and naive in our political judgment of what to expect from the Congress.

Last year, after a few letters and telephone calls around our states quickly produced various preservation needs totalling some $300 million, we screwed up our courage and asked you essentially to return the program to the funding level it had enjoyed prior to its crash, and we asked you to remove the prohibition on using the funds for actual building rehabilitation work. So, last year we were finally speaking to you more bluntly about unmet needs, and we confessed that continued level funding simply left us further and further behind in addressing those needs. However, we still tried to demonstrate our political prowess through the strategem of arguing merely for the return to a previous level of commitment.

Mr. Chairman, let me assure you that this year we are no less realistic in our expectations, no more naive in our perceptions, no less cognizant of the political competition for limited funds. However, we are more convinced that you need a fuller picture of preservation needs in this country, we are less reluctant to be the ones to give you that picture, and -- thanks to the national Needs Assessment that Congress agreed to -- we, ourselves, are more aware of the alarming breadth of those needs. The last tally I saw on the Needs Assessment showed a full range of construction and non-construction needs approaching $3 billion. Perhaps the total has exceeded that mark as Park Service officials have continued the count. Virginia's contribution to that total was about $90 million, and my own analysis of the projects we reported is that we did scratch the surface, but we did not plumb the depths of Virginia's needs. I suspect that the same should be said for the figures nationwide.

With this kind of information staring all of us in the face, we in the National Conference concluded that the most honest, the most justifiable request we could put before you is a request for funding at the full amount authorized by law: $150 million. To ask for any less is to keep from you that sense of urgency we feel about the current condition of the nation's historic resources.

In preparing to come here today I have reviewed a number of the presentations various of us have made in the past on the question of the Historic Preservation Fund. Many of the ideas were and are compelling, so that some brief reminders here should serve to recall them:

> From Larry Oaks of Alabama came the powerful reminder that income derived from the depletion of one important resource was intended for the protection and management of another important resource. As we all know, the amount of

funds from outer continental shelf oil leases assigned to the Historic Preservation Fund each year is $150 million.

From Charles Lee of South Carolina came the thought provoking idea that spending vast sums for defense from foreign enemies should logically be accompanied by adequate spending to preserve those physical elements of the American patrimony and way of life that we seek to defend.

Larry Tise of Pennsylvania reminded us that preservation has proved to be the successful strategy for revitalization of downtowns in communities ranging from smaller towns and cities to major metropolitan areas. Specifically, he pointed to the historic preservation tax credits and the billions of dollars in private investment they have stimulated. There can be no question that the tax credits have created the major preservation success story of this generation.

On the other hand, Ted Sanderson of Rhode Island emphasized that most of our historic structures are not income-producing and are therefore not eligible for the tas credits. He lamented that the prohibition against bricks and mortar projects means that for our great historic schools, courthouses, churches, libraries, city halls, and houses, we can look at them, record them, plan for them, worry about them, and watch them crumble, but we cannot touch them.

In my own comments during HPF reauthorization hearings last spring, I pointed out that most of the nation's historic and prehistoric resources remain unsurveyed, and that we cannot begin to protect those resources we have not yet even found.

Both Larry Oaks and I observed that in our states, while federal investment in preservation has dwindled, the preservation case load, the client need for enabling assistance, and the general public interest in preservation have all increased dramatically. While the federal reduction in absolute dollars has been striking, the impact of that reduction has been magnified by the reduced value of the dollar.

## STATEMENT OF ALBERT M. MANVILLE II, PH.D., SENIOR STAFF WILDLIFE BIOLOGIST, DEFENDERS OF WILDLIFE

Mr. Chairman, I am Dr. Albert Manville, Senior Staff Wildlife Biologist for Defenders of Wildlife (Defenders), and I chair the Nongame Coalition. On behalf of Defenders, the Animal Protection Institute of America, the Fund for Animals, the Humane Society of the United States, the Wilderness Society, and the Wildlife Center of Virginia, I would like to thank you for allowing me to testify here today.

We appreciate your providing a $1 million enhancement for nongame research and management in the Fish and Wildlife Service's (FWS) FY88 budget. Although these funds will provide a major step toward funding and implementing the "Nongame Migratory Bird Management Plan for the United States," they still are short of the mark. Therefore, we strongly object to the FWS's recommendation that the $1 million add-on -- including $500,000 for research and $500,000 for management -- be deleted from their FY89 budget. Our recommendation:

- continue the $1.0 million add-on from FY88, and
- fund the Fish and Wildlife Conservation Act of 1980 for $5.0 million.

**WILDLIFE RESOURCES, R&D: NONGAME:**

**I. Implementing the "Nongame Migratory Bird Management Plan for the United States": restore the $1.0 million ($500,000 for research and $500,000 for management).**

**A. Research**

We applaud the Service for their current research funded through the $500,000 add-on for FY88. This research includes:

- improvements in monitoring techniques on shorebird and raptor populations through the Patuxent Wildlife Research Center ($150,000),
- studies on breeding density and distribution of forest birds and the effects of forest fragmentation also through Patuxent WRC ($100,000),
- a study of staging areas for shorebirds in the midcontinent coordinated through the National Ecology Center, Ft. Collins ($100,000), and
- research on the bristle-backed curlew in Alaska ($150,000).

The intent of the draft "Nongame Migratory Bird Management Plan for the United States" (Plan), however, is to:

- **enable determination of the status of all** migratory birds -- some 757 (91%; Figure 1) species currently listed as nongame or in effect nongame (neither hunted nor trapped) but status generally in question;
- **assess population conditions and habitat needs for all** nongame species; and
- **prevent species from declining** to the point that they have to be listed as threatened or endangered under the Endangered Species Act.

Presently the budget for these 757 species is only a small fraction of the funds spent on research for game birds. It's time that the FWS's nongame program get more than the leavings from game bird research funds.

The Plan, furthermore -- in both its original 1983 draft form and now in its final 1988 revised draft format -- calls for a **comprehensive management approach** for all nongame migratory birds. With this intent in mind, there is absolutely no way the Service can implement this objective by:

> "... reduc[ing] its nongame research program by $500,000 in FY 1989 because the highest priority projects can be continued with funds made available in FY 1989 from completed projects." (FWS budget document p. 153)

In 1987, the Service updated a report published in 1982 then listing 28 nongame bird species in trouble, whose populations were unstable or decreasing. Of the 28 species on the 1982 list, 22 were retained, 6 were deleted (3 because of listing under ESA and 3 because of evidence of increasing or stable populations), and 8 were added to the list (1 currently proposed for listing as endangered). This resulted in a net gain of two species (OMBM 1987 Migratory nongame birds of management concern in the U.S.: 1987 list). We strongly suspect that further nongame bird research will uncover additional bird populations in trouble. It is absolutely essential that this research is therefore carried out, with steps then taken to mitigate problems.

In our 1987 testimony before your Subcommittee, we indicated the following research needs (Table 1):

| [in thousands $$] | Salary & Benefits | Operating Costs | Total | FTE's |
|---|---|---|---|---|
| Population & monitoring | $0.344 | $0.26 | $0.604 | 10.5 |
| Habitat & environmental influences | 0.344 | 0.22 | 0.564 | 10.5 |

A $500,000 cut in the budget would further prevent these needs from being attained.

What is even more confusing is the Service's "Summary of Funding Shifts" (FWS budget document p. 147) which explains that funds are being shifted to nongame research. Although it's reassuring that more research programs are now being called "nongame research," this shift is apparently not resulting in the creation of any new or additional nongame research, let alone the implementation of the yet-completed comprehensive Nongame Plan.

We question the Service's base Nongame Species Research figure of $2.462 million/43 FTE's for FY 1989 (FWS budget document p. 148). We feel that the Committee is owed an explanation of the justification for this figure. We also would recommend that the FWS report to the Committee on its progress in implementing the Plan. The Service has been told to complete the Plan by September, 1988. Each subsequent year, it also should report to Congress on resultant progress.

A portion of the Nongame Plan calls for an assessment of the impacts of marine plastic pollution on nongame seabirds. The FWS now has this capability with the Tiglax (Eagle) to conduct such studies, but would need funding for a long range program (minimum of 5 years) monitoring the population and production of puffins on Agattu and Buldir islands, Alaska. The program would entail bird banding, assessment of reproductive success, determination of sites where plastics concentrate, and possible radio telemetry research. Estimated annual costs (vessel time, crew, equipment, supplies, etc.) total approximately $110,000 per year. Much of this money may be available through the existing refuge operations budget, although this is unclear.

### B. Management

Our recommendations for funding in last year's testimony for the Plan included the following figures (Table 1):

| [in thousands $$] | Salary & Benefits | Operating Costs | Total | FTE's |
|---|---|---|---|---|
| National coordination | 0.213 | 0.10 | 0.313 | 5 |
| Regional coordination | 0.345 | 0.14 | 0.485 | 10 |
| Population monitoring | 0.229 | 0.25 | 0.479 | 6 |

With the $500,000 appropriated for FY 1988, the Service has apparently used $360,000 to develop programs within the Portland and Minneapolis regions. The remaining $140,000 is being used in the Washington, DC office for allocation to various monitoring projects, as well as the resumption of publication of several studies ("Winter Bird Population Studies" and "Breeding Bird Census"). We commend the FWS for their management efforts, but would strongly recommend the need for **data on breeding bird surveys and analyses, with improvements in gathering and analysis of population data.**

A quick look at the original draft Plan would indicate the need for national as well as complete regional coordination and comprehensive population monitoring efforts. The $500,000 add-on has certainly helped in this effort, but more funds are obviously needed. Elimination of the $500,000 in management funds would be disasterous. The FWS is recommending its elimination.

### C. Overall Recommendation

Because actual funds for FY 1988 were allocated so late in the budget process -- some of the money is not yet committed -- and because the revised draft Plan has yet been released for public analysis and comment, we recommend a restoration of the $1.0 million for nongame research and management. Once the Plan is finalized, a more comprehensive analysis will result with funding recommendations for FY 1990.

It is important to point out that the request for funding for the Nongame Plan was not a one-time effort as indicated by the Service, but rather a long-term program, to be funded for at least 5 years.

### II. Funding for the Fish and Wildlife Conservation Act of 1980 (Public Law 96-366, reauthorized 1986):

**$5.0 million** and **No Net Change** in FTE's

We strongly recommend that Congress provide **$5.0 million** to implement the FWCA, the money to be used for a matching grant program to reimburse states for development, revision, and implementation of comprehensive state nongame conservation plans. **No new FTE's** will be required as some of the personnel hired to initiate and implement the Nongame Plan will also function as administrators for the Act. This funding is critical as a source of seed money to "grease the gears of progress" until an off-budget funding mechanism can be developed and implemented -- hopefully in 1988. Funding the Act would also serve as a show of good faith to the states which have been waiting since 1980 for matching funds from Congress.

State nongame programs have serious problems. Most programs deal essentially with high-visibility projects, often single-species oriented. Few attempts are made to maintain all wildlife on an ecosystem basis, and the importance of biodiversity is hardly stressed. As a result, critical habitats are not being targeted, and species continue to decline or vanish.

Statistics from the 1985 hunting, fishing, and wildlife related report indicate that the nongame constituency is rapidly increasing 110 million Americans (over half of all adults) actively participated in nonconsumptive wildlife-related activities -- feeding, photographing, or watching wildlife -- while some 74% of the American public was classified as "nonconsumptive participants." This silent majority has apparently not been heard by Congress.

Although the Act specifically mandates the FWS to assist the states in preparing and implementing **comprehensive** nongame management plans, ecosystem management and habitat protection need to be better enunciated. These comprehensive plans, however, will evaluate the status of nongame fish and wildlife species in each state, identify critical habitats, and ultimately assist the state fish and wildlife agencies in finding the most acceptable and cost effective means for protecting the habitat and preventing the decline of **all nongame fish and wildlife**.

It is particularly important to note that a healthy ecosystem is a diverse ecosystem, and maintenance of an integrated biologically diverse system is critical. As species continue to disappear -- particularly at currently accelerated rates -- the health and stability of the environment worsens. Funding for the Act can begin to reverse this trend.

## STATEMENT OF THE NAVAJO NATION

The Navajo Nation, on behalf of the thousands of families affected by the 1974 Relocation Act and related proceedings, thanks the Chairman and Members of the Senate Subcommittee on Interior Appropriations for this opportunity to present comments on Fiscal Year 1989 appropriations to the Navajo-Hopi Indian Relocation Commission (NHIRC) and the Bureau of Indian Affairs (BIA) with respect to relocation-related programs.

Although the Navajo Nation recognizes the fundamental inequity and futility of the Relocation Act itself, we also recognize that for the present, it is necessary for the Congress each year to appropriate funds for the implementation of that Act. As it is the heavy responsibility of this Subcommittee to review and determine the level and nature of these appropriations, this written statement shall address 'only certain issues bearing directly on these appropriations.

We oppose any increase in funding for the relocation program carried out by the BIA with respect to the Chambers-Sanders lands ("the New Lands"). According to Assistant Secretary for Indian Affairs Ross Swimmer, the BIA still has nearly $15,000,000 left over from the FY 1986 appropriation of nearly $22,000,000 for this purpose. Yet, as of this date, only 31 families are reported to have been relocated to the Chambers-Sanders lands. The Subcommittee is well-acquainted with many of the inadequacies of the BIA's planning and implementation for this program, therefore this testimony will not recapitulate them here. The fact that over two-thirds of that appropriation remain unused over two years later is merely further evidence that relocation is an ill-conceived policy.

We recognize that the BIA does not at this time seek an additional appropriations for this program, and we concur. We do not at this time challenge the BIA's request for $1,971,000 to administer range management programs in the former Joint Use Area, although we may submit comments at a later date on specific activities within this program. The Subcommittee should be aware that the massive livestock impoundments and other activities of the BIA on the Hopi Partitioned Lands (HPL) have caused painful hardship for the over 500 Navajo families still residing on the HPL, including those who have agreed, under much stress and intimidation, to relocate. These people are, in effect, being punished. And punished as much, probably more, are the over 1,100 certified families who left the HPL but remain unserved. Whatever may have been "voluntary" about the relocation program ceased to exist thanks to the cruelty of the many restrictions placed on these innocent families.

The Subcommittee should particularly notice this BIA assertion in the program justification submitted to Congress:

> Development of water, construction of new housing and roads for all potential relocatees should be near completion in the fourth quarter of FY 1988.

Given the inadequacy of BIA planning with respect to the 31 families already moved to the Chambers-Sanders lands, and the overall failure of both the BIA and the NHIRC to carry out relocation in compliance with the requirement of P.L. 93-531 to minimize the many adverse impacts of relocation through counseling, job training, economic assistance and other activities, we can only shudder to think how "all potential relocatees" will be catapulted onto these relocation sites over the next six months. (See Exhibit A, attached).

The Navajo Nation wishes once again to state clearly its policy and practice with respect to the decision made by families choosing to relocate: we know, better than any federal agency, the pain and anguish that this process has brought to them, and we will work with them in accordance with their wishes. We seek to ensure that the promises made to them by P.L. 93-531 and by the BIA and the NHIRC are kept, and that these families are provided all to which they are entitled by law.

2.

The NHIRC is requesting $22,973,000 for FY 1989, of which $3,515,000 is to be provided for discretionary funds. The Navajo Nation requests the Subcommittee to direct the NHIRC to contract with the tribal government to provide police and fire protection and certain other community services to the Chambers-Sanders lands. The Tribe requests the Subcommittee to consider funding these contracts through one or more of the following: 1) a transfer from the BIA's carryover of nearly $15,000,000 for the New Lands relocation;

## STATEMENT OF HARRIS ATKINSON, MAYOR, METLAKATLA INDIAN COMMUNITY

We are deeply concerned that the Administration proposes to eliminate support for our participation in the implementation of the Pacific Salmon Treaty between the United States and Canada. See BIA Budget Justification at page 140. We are presently engaged in a salmon tagging programs for which $63,000 is provided through the Bureau of Indian Affairs in the FY 1988 appropriation. Discontinuance of this program after one year makes no sense. Our exclusive reservation fishery (a trust asset of the Community held for our benefit by the United States under federal law) and our contribution to the salmon fisheries of Alaska through management of the federal Tamgas Creek Hatchery located on our reservation fully justify our active participation and involvement in treaty implementation based on accurate data as to our fishery. We urge that the federal government continue its assistance to us in this connection through continuation of this program at the $63,000 level in FY 1989.

We are also concerned that the Tamgas Creek Hatchery which has been scheduled for completion for several years has still not been finished in accordance with the approved plans. This is due to cost overruns in the BIA-administered "final phase" of the project. As a result, the increased rearing capacity resulting from this construction is only eight million fry, instead of forty million, as planned (to reach a total of 60 million fry per year). A full explanation of the reasons why the project has not been completed is enclosed with this statement and we urge that you take this matter up with the Bureau and assure completion of the project as originally planned in FY 1989. We would be extremely interested in an opportunity to review with your staff the information provided to you by the Bureau on this matter.

We are also concerned that the Bureau proposes to transfer responsibility for the negotiation of indirect cost rates to the Office of the Secretary from the Inspector General. We have not been provided with any explanation of the effect of this change, nor are we aware of any proposed changes in the present federal regulations governing the negotiation of indirect costs either by the indirect cost rate or "lump sum" method. We have no objection to the use of the concept of "reasonableness" (as mentioned by the Bureau) in indirect cost negotiations, as it has always been employed in our negotiations of indirect costs with the federal government, but we have never received the full amount of our negotiated indirect costs from the Bureau, and we are concerned that the transfer of this function from the Inspector General is meant to give the BIA greater administrative leverage to reduce negotiated indirect costs below the amounts reasonably required.

We strongly support the pending amendments to Public Law 93-638 (already passed by the House and favorably reported by the Senate Select Committee on Indian Affairs) that would make more explicit the Bureau's responsibility to assure the reimbursement of 638 contract administration costs without requiring tribes to reduce services to cover such costs (the so-called financial penalty for 638 contracting). The Bureau has announced that it plans to fund only 88% of 638 indirect costs in FY 1988 and is allocating only 50% of that amount at this time. Yet these are negotiated costs which have been established through indirect cost negotiations pursuant to established federal procedures. We urge that you review this proposal carefully to ensure that the personnel assigned to represent the government in such matters are technically qualified and experienced both in accounting principles applicable to indirect costs and in the requirements of P.L. 93-638.

# STATEMENT OF CAROLYN MICHELS, EXECUTIVE DIRECTOR, NORTON SOUND HEALTH CORP.

The Norton Sound Health Corporation is a tribal organization representing fifteen Alaska Native villages with a total population of about 8,000 residents in the Norton Sound and Bering Straits region of Alaska. We administer community health programs funded by the Indian Health Service, the State of Alaska and other funding sources and we operate the Norton Sound Regional Hospital in Nome, Alaska, under a contract pursuant to Public Law 93-638. We are the principal health care supplier in the entire region, a portion of which lies within three miles of the Soviet Union.

We are pleased to note that the Administration has abandoned its previous attempts to eliminate the vital Community Health Representative program and make severe cuts in the contract health care hospital and clinics funding. However, we are very much disturbed that no funding was requested for the Indian and Alaska Native program under the Omnibus Drug Act (Public Law 99-570), which was heralded as a bold new federal move against alcohol and drug abuse when passed and then, apparently quickly and quietly forgotten. We request that you question the Indian Health Service closely on the needs in Alaska with respect to programs authorized by that Act. Alcoholism is, as you know, the number one health problem among Alaska Natives. We have tried many times to obtain assistance from the Indian Health Service to address this problem in our region but so far without success.

We oppose the implementation of the new IHS eligibility regulations. In requiring formal evidence of "tribal membership" the regulations will deny services to many Alaska Native villages and other traditionally organized Indian tribes which have not established the bureaucracy necessary to maintain a membership roll. We note and approve the recommendation in the joint memorandum of the Bureau of Indian Affairs and the Indian Health Service, dated September 17, 1987.

We object to the continued effort to offset Medicaid/Medicare collections against appropriations for Indian and Alaska Native health care and urge that you reject this proposal as you have done in the past. We also question the wisdom of the proposed transfer of the IHS Headquarters to Albuquerque, New Mexico. This may be an attempt to make more difficult effective congressional oversight of the Indian health program.

In recent years the Indian Health Service has seriously undermined the effectiveness of Public Law 93-638 in two areas and we urge that your Committee look carefully at the payment of 638 administrative costs and at the IHS' policies with respect to resource reallocation. We note that the House Committee report for the FY 1988 appropriation cites the IHS for failing to request adequate funds for indirect costs for contracts under P.L. 93-638. Even more seriously, IHS received a $2.5 million increase for this purpose in FY 1987 and used the funds for other purposes. Frequently, too, IHS will disallow items of administrative cost which our accountants tell us we must incur in prudent operation of our program. An example of this is the disallowance of a depreciation reserve on our hospital building. This is a complicated issue, and we are preparing a detailed explanation for your Committee and the Senate Appropriations Committee to seek relief through the appropriation process. We will file this statement shortly and request that you consider it in connection with action on the FY 1989 appropriations.

## STATEMENT OF ROBERT CLARK, EXECUTIVE DIRECTOR, BRISTOL BAY AREA HEALTH CORP.

The Bristol Bay Area Health Corporation is a tribal organization representing thirty-two Alaska Native villages with a total population of over 4,200 Alaska Native residents in the 46,573 square-mile Bristol Bay region of Alaska. We administer community health programs funded by the Indian Health Service, the State of Alaska and other funding sources and we operate the new Kanakanak hospital of the Indian Health Service under a contract pursuant to Public Law 93-638.

The Bristol Bay Area Health Corporation strongly supports the testimony of the Alaska Native Health Board in favor of the continuation and strengthening of the community health aide program. Due to the extreme isolation of many Alaska Native villages and the limited availability of hospitals and professional medical personnel, health aides located in the villages are essential to the maintenance of Alaska Native health care and critical to any progress toward achieving the goals of the Indian Health Care Improvement Act in Alaska.

We are very pleased at the Administration's request to expand the village clinic program in Alaska by 28 greatly needed new clinics (including four in our region) and urge that your Committee approve this proposal. In rural Alaska the village clinics are an essential ingredient for improving Native health care.

BBAHC is concerned that in recent years the effectiveness of Public Law 93-638 has been seriously affected by the failure adequately to fund 638 administrative costs. We urge that your Committee look carefully at this problem once again. We note that the House Committee report for the FY 1988 appropriation cites the IHS for failing to request adequate funds for indirect costs for contracts under P.L. 93-638. Even more seriously, IHS received a $2.5 million increase for this purpose in FY 1987 and used the funds for other purposes.

In FY 1987 IHS allocated an increase of only $100,000 to our indirect cost funding to cover the additional indirect costs of operating the new Kanakanak hospital. These funds were allocated on a non-recurring basis and (thus far) no funds have been allocated to us for this purpose in FY 1988. We are being required to absorb the 638 administrative costs of hospital operation within the level of funding appropriated by the Congress with the intent of funding 89% of the full need.

We are puzzled and distressed at the continued failure to address adequately the need for "638 administrative costs", although both the Congress and IHS emphasize their appreciation that such funds are critical to successful implementation of the Indian Self-Determination Act. We understand that the Administration has "stressed the importance of involving Indian tribal organizations in the planning and operation of IHS programs" and has set a goal of contracting 75% of IHS resources to tribally administered health organizations by 1998. The most effective way for the Federal Government to ensure movement in this direction is to stop requiring 638 contractors to absorb negotiated indirect costs within the contract amount which would be allocated for a program under direct IHS operation. As long as the financial penalty for contracting exists, it is hard to believe the verbal federal expressions of support for contracting.

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## STATEMENT OF THE BIG MOUNTAIN LEGAL OFFICE

In recent months, several members of Congress and other high-ranking officials of the federal government have stated that there will be no forced relocation of families from the HPL and that the Relocation Act of 1974 was a mistake which Congress should avoid repeating in the future. BMLO agrees that the Relocation Act was, and is, a terrible mistake. However, we believe that Congress can, and should, do more than promise that there will be no more relocation programs established in the future, when the relocation program mandated by PL 93-531 continues to be implemented today. We also maintain that the relocation program already is, and always has been, characterized by the use of force: not the force of troops but the coercion of a livestock reduction of 85-90%, a freeze on all construction and improvements, the erection of partition-line and range management fences and water diversion projects which have desecrated numerous sacred areas, continual harassment by NHIRC and BIA personnel, and ultimately a law which gives the people no choice but to abandon their traditional way of life or else attempt to survive under the most intolerable conditions. Consequently, BMLO reiterates its conviction that Congress must sill enact alternative legislation which would foster a resolution of the relocation problem that would recognize and protect the traditional culture and human rights of the Native Americans currently subject to relocation.

Pending the enactment of such legislation, the Appropriations Subcommittee should ensure that the harshness of the conditions presently being enforced on the HPL be alleviated. Contrary to the suggestion that conditions on the HPL have remained constant over the last several years, the statements of Navajos lawfully residing on the HPL evince that their situation has steadily worsened since the passing of the July, 1986 deadline and has now reached an unbearable level. Particularly distressing have been the numerous reports of increased intimidation and harassment by BIA "counselors" and other personnel. Some of these reports, in the form of legal affidavits, have been submitted to the Subcommittee by the Navajo Tribe. These affidavits will also be used as evidence in a First Amendment (Religious Freedom) class action suit, as attorneys from BMLO and across the country attempt to gain a preliminary injunction against the continued implementation of the relocation program on the HPL.

In order to avoid further unnecessary harassment of traditional Navajo families and infliction of damage to their religion and culture, BMLO respectfully offers the following three recommendations to the Appropriations Subcommittee:

(1) Direct the NHIRC to complete its evaluation of the impacts of relocation on traditional Navajo religion and to provide the results of this evaluation to Congress. The NHIRC has a trust responsibility and a statutory obligation to do so.

Section 13 of PL 93-531 directed the NHIRC to devise a "detailed plan" for relocation--a plan which would "be developed to the maximum extent feasible in consultation with the persons involved in such relocation" and which would "take into account the adverse social, economic, cultural, and other impacts of relocation on persons involved in such relocation and be developed to avoid or minimize, to the extent possible, such impacts." Section 2 of the American Indian Religious Freedom Act of 1978 directed federal agencies to "evaluate their policies and procedures in consultation with native traditional religious leaders in order to determine appropriate changes necessary to protect and preserve Native American religious cultural rights and practices." To date, the NHIRC has authorized only one, preliminary anthropological study of only one of the communities affected by relocation. This study was submitted to the NHIRC in January of 1979--almost ten years ago.

The anthropologists who conducted this assessment based their evaluation almost entirely on data that had previously been collected by NHIRC personnel. Their evaluation of the impacts of the relocation program on traditional Navajo religion suggested that the 1974 statutory guarantee of access to and use of sacred sites--however well-intentioned it may have been--was inadequate to ensure the full protection of the right to the free exercise of religion of the traditonal Navajos. In addition to having questioned the constitutionality of relocating traditional Navajos from their sacred, ancestral homelands, the preliminary assessment repeatedly expressed the need for the federal government to authorize a more detailed and comprehensive study of the religious significance of sacred places for Navajos residing on the HPL. Despite its having received the preliminary assessment (which had been based upon its own data), the NHIRC has failed to inform Congress in any meaningful way concerning the adverse impacts of the relocation program on traditional Navajo religion and culture. The NHIRC has not forwarded the preliminary study to Congress, nor has it authorized a detailed, comprehensive study--or any additional study--of the impact of relocation on Navajo religion. The failure of the federal government to evaluate fully the adverse impacts of relocation on traditional Navajo religion urgently needs to be redressed. As several social scientists have shown, relocation--no matter how "humanely" implemented--destroys the basis of traditonal Navajo life: the sacred ties that bind individuals and families to their ancestral homelands.

(2) Restructure the "counseling" program designed to persuade families to relocate to the New Lands, so that personnel from relocation agencies will cease to have a rationale for intensive, door-to-door visitation--and, in many cases, intimidation--of families now lawfully residing on the HPL. Rather than driving from home to home, federal personnel could be directed to meet with interested families at the tribal chapter houses or at federal agency offices.

(3) Clearly place priority on providing relocation benefits to those families who most desire and need them--priority could be established according to both the chronological order of application for benefits and a current demonstration of readiness and willingness to relocate.

## STATEMENT OF PERCY YOUCTON, CHAIRMAN, CONFEDERATED TRIBES OF THE CHEHALIS RESERVATION

The Confederated Tribes of the Chehalis Reservation requests Congressional support in the FY89 appropriations for the Bureau of Indian Affairs to establish a justice system for the reservation. The tribe has relied on adjacent County Sheriff personnel for past law enforcement, which has proven most inadequate. The State of Washington retroceded civil and criminal jurisdiciton to the Chehalis Tribe on March 18, 1988.

The establishment of a justice system on the Chehalis Reservation will require both law enforcement personnel and a judicial court operation. We request an appropriation of $241,400 for a complete law enforcement program including one-time capital equipment expenditures. Our judicial system will require $50,000 to initiate the first year for court personnel and operations. We would hope these appropriaitons could be built into the BIA operational base to ensure future year funding. A briefing document describing the Confederated Tribes of the Chehalis Reservation, the retrocession process, and our basic law enforcement needs is enclosed for reference.

We are justifiably concerned about the BIA law enforcement budget for FY89 given the administrations proposal to reduce this critical account by $2 million. We urge you to restore BIA and IHS programs directly impacting Tribes and their people to FY88 levels. And, we would be most appreciative of your support in establishing a Chehalis Tribal law and order system in FY89.

## STATEMENT OF ROBERT JOE, SR., CHAIRMAN, SWINOMISH TRIBAL COMMUNITY

The Swinomish Tribal Community, located on reservation lands North of Seattle, received retrocession of its law enforcement from the State of Washington on March 18, 1988. Law enforcement retrocession was sought by the Tribal government as local county law enforcement services are sporadic and limited.

The Swinomish Tribal Community requests your support for an FY 89 appropriation of $232,000 to provide 24 hour, seven day a week police protection for reservation residents. The initial capital equipment expenditures to begin complete civil and criminal jurisdiction for our community will be transferred to needed personnel functions in future years. A briefing document on our tribal community, the retrocession process, our law enforcement needs, and the budget specifics is enclosed for your reference.

In general, we request that BIA and IHS appropriations designated for Tribal government programs and direct Tribal services be restored at least to FY88 levels. We seriously question the logic and purpose of administration budget proposals which maintain the bureaucracy at the expense of the tribes. American Indian Tribes are the sole reason the BIA and IHS exist. Appropriations directly impacting Indian Tribes and Indian people should be given priority Congressional consideration.

We appreciate the attention given this issue and urge you to support an appropriation in FY 89 to implement an effective law enforcement program for the Swinomish Tribal Community during deliberations on the Interior and Related Agencies budgets. Our concern and request is further justified as the administration requested a $2 million dollar Bureau of Indian Affairs law enforcement decreases for FY 89.

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## STATEMENT OF LARRY G. KINLEY, CHAIRMAN, LUMMI INDIAN BUSINESS COUNCIL

The Lummi Indian Tribe is committed to a future of self-sufficiency through economic and human resource development. This letter emphasizes our requests and concerns regarding the fiscal year 1989 appropriations for the Bureau of Indian Affairs and Indian Health Service. Tribal testimony before the House Interior and Related Agencies Appropriations Subcommittee of March 3, 1988 is enclosed for reference.

### A. Provide $150,000 to research and plan a tribal Department of Education

Almost half the Lummi tribal population is under 16 years of age. Multiple education programs serve our youth under a broad array of agendas and objectives. The ESEA authorization, S. 373, Section IIII8 authorizes the establishment of Tribal Departments of Education consolidating funding from the BIA and Department of Education. Currently under House-Senate conference (S. 373 & H.R. 5), the Lummi and Oglala Sioux Tribes were specifically mentioned as program participants. We request an appropriation of $150,000 to begin our research and planning for a Lummi Tribal Department of Education to initiate a comprehensive, tribally-designed and managed education program.

**B. Restore the $2.1 million proposed law enforcement reduction and ensure that the FY88 increase of $100,000 for Lummi law enforcement is incorporated into the FY89 base for the Bureau of Indian Affairs**

Effective tribal law enforcement and efficient judicial systems are the prominent expression of tribal self-governance. The Lummi tribe appreciates the needed increase in FY88 of $100,000 for law enforcement personnel and operations. The administration request to reduce BIA law enforcement FY89 appropriations by $2.1 million, nationwide, is a most offensive proposal to weaken tribal governments. We urge that the $2.1 million for tribal law enforcement be restored and add the Lummi $100,000 increase to the FY89 base.

**C. Restore the proposed reduction of $1.5 million for hatcheries rehabilitation to the BIA Construction account**

The Congress provided $1.5 million in FY88 hatcheries rehabilitation in the BIA Construction account and the administration proposes to eliminate this important initiative for FY89. The Lummi Tribe had requested over the last six years $800,000 to modernize two 16 year old hatchery facilities. The tribe received $682,000 in FY88 towards this modernization from the hatcheries rehabilitation account. As the BIA documented need for hatcheries rehabilitation is $6 million dollars, we request restoration of these funds in FY89 to address nationwide tribal needs, including the $118,000 necessary to complete modernization of the Lummi facilities.

**D. Seriously consider a special BIA/IHS research and demonstration initiative to support tribally-designed programs to strengthen the family unit**

The stability and strength of the family unit is Lummi's greatest concern. Dysfunctional families, created over generations of poverty and dependency, continue their negative role models into succeeding generations. We believe the family issue as the most fundamental for resolving all other social, health, educational, and employment problems. We propose that Congress create a combined BIA/IHS special initiative to strengthen and preserve tribal families designed by tribal governments utilizing traditional methods through tribal members whose personal skills and relationships to the community are recognized as appropriate for this sensitive mission. Currently numerous programs address many symptoms, but none address root causes for existing social ills.

**E. Congress should give priority consideration to appropriations targeted to tribal government operations**

We are, indeed, disturbed by the administration's FY89 appropriations proposals which consistently reduce or eliminate BIA and IHS programs directed to tribal government operations. The Lummi tribe's enclosed testimony highlights key programs for restoration and expansion.

**F. Lummi Tribe will be seeking a $6 million appropriation over the next three years to construct Lummi port facilities; the FY89 request is for $2.5 million**

For your information and not specifically for consideration in the FY89 appropriations for the Interior and Related Agencies Appropriations Subcommittee is the Lummi Tribe's plan to request a $6 million appropriation over the next three years to construct a Lummi port facility. The Lummi tribe is just completing a five year planning phase for this facility in a natural harbor area.

The Lummi Indian Reservation and proposed harbor border prime commercial fishing and recreational boating areas as well as traditional shipping lanes. The Corps of Engineers has committed approximately $2.7 million in Federal matching funds to complete Federal navigation improvements. The Corps has determined that federal benefits for the Lummi Port outweigh costs by 1.3 to 1 in fuel and operating savings, reduced time loss, reduced vessel damage, land enhancement and employment benefits.

The core development focus of the planned Lummi port is a protected moorage facility for 400 commercial fishing boats, with a 65 acre adjacent fill for marine dependent businesses and industries including facilities to service the large American catcher processors which are emerging to replace foreign vessels. The final Environmental Impact Statements and Definite Project Report are complete, and the project is ready for final design and construction by the Tribe and Corps under Section 107 of the 1960 River and Harbor Act. All Federal and local permits for this project have either been obtained or will be obtained by June 30, 1988.

The entrance channel, moorage facility, upland area and utilities are considered as infrastructure for the Port, and when completed will attract many millions of dollars in private investment for fisheries-related industry located on the adjacent 200 acres donated by the Tribe.

Development of the infrastructure for the Lummi Port includes:

> Year 1, Dredging channel entrance and moorage basin, construction of entrance structure, containment dikes and landfill. Additional construction funds required: $2.5 million
>
> Year 2, Moorage berths, wharves, utilities, access roads, boat launch. Additional Construction funds required: $2.5 million
>
> Year 3, Parking facilities, fuel station, harbor maintenance and operations facilities. Additional construction funds required: $1 million.

Since the Tribe does not have access to development capital of the type normally used to finance this type of infrastructure, a total of $6 million is required over a three year period, with a $2.5 million commitment the first year.

In conclusion, the Lummi Indian Tribe appreciates the support exhibited by Congress to appropriations directly impacting tribal operations and development. And, we appreciate the attention and consideration given our expressed requests.

## LETTER FROM JOSEPH B. DELACRUZ, PRESIDENT, QUINAULT INDIAN NATION

April 19, 1988

The Honorable Robert C. Byrd
Chairman
Senate Interior and Related Agencies
Appropriations Subcommittee
122 Dirksen Senate Office Building
Washington, D.C. 20510

Attn: Ms. Sue Masica

Dear Chairman Byrd:

This letter highlights the priority FY89 appropriations requests for the Quinault Indian Nation and offers a brief justification for each issue.

**CONGRESS SHOULD GIVE PRIORITY CONSIDERATION TO BIA/IHS PROGRAMS, RESOURCES, AND SERVICES DIRECTLY IMPACTING TRIBAL GOVERNMENTS**

Our basic concern is the continued administration efforts to reduce or eliminate programs and financial resources directly impacting tribal governments while preserving and expanding financial resources for the bureaucracy. We urge Congress to protect, restore, and expand programs and financial resources which directly effect tribal governments and American Indian people. In the inevitable struggle over scarce resources, it is only logical that Congress give tribal governments priority consideration.

**1. Provide $1 million dollars for the Quinault Indian Nation to continue land repurchase and consolidation program**

The Quinault Indian Reservation was divided into 2340 individual 40 to 80 acre parcels or allotments between 1907-1933 under the General Allotment Act of 1887 resulting in a complex patchwork of ownership and heirship rights. The BIA devastation of the reservation forestry resources is well documented. The Quinault Indian Nation is attempting to consolidate Tribal lands for management and regeneration of its forestry resource. Forty-two percent of the reservation lands are in fee or mixed fee/trust/tribal ownership as documented on the attached chart.

The Quinault Indian Nation is concluding negotiations on a $4.5 million dollar loan guaranteed by the BIA to repurchase 10,000 acres of land held by the Federal Land Bank. The Senate had provided a $1 million appropriation for FY88 to assist the Tribe repurchase this parcel, but the provision did not survive the House-Senate Conference. The tribe is restrictively mortgaged into the near future to service this land repurchase loan. The appropriation provision would allow the tribe to continue land acquisitions in the next decade.

The direct economic benefit of an increased land base for the Quinault Nation are greater future stumpage income and employment opportunities currently usurped by off-reservation companies. With an adequate forestry resource and land base, the Tribe could feasibly consider value-added processing facilities such as a lumber mill. And, a consolidated land base reduces forest management expense per acre. A majority of the non-Indian owned property on the reservation is available for purchase.

**2. Provide an $800,000 appropriation as the Federal contribution to the Queets River hatchery construction; Washington State has already committed $1 million for construction of this facility**

For the past two years, we have requested funding for the development of a Queets River salmon hatchery. The House Interior Appropriations provided $800,000 in the FY88 appropriations, but the provision was removed during the House-Senate Conference on the FY88 appropriations.

Queets River wild coho have proved to be a weak link in Washington ocean salmon management in four of the last seven years, thereby severely restricting both ocean and in-river fisheries. To solve this problem, the State of Washington and the Quinault Nation have embarked on a cooperative effort to increase the abundance of Queets wild coho through a unique enhancement program.

The Queets River hatchery will augment the wild coho runs to a level that will increase the likelihood of more stability for both commercial and recreational ocean fisheries along the Pacific Northwest Coast. The improved fishery is expected to benefit both tribal and regional economies, especially in the secondary support industry markets.

**3. Transfer the Quinault National Fish Hatchery from the Bureau of Indian Affairs to the Fish and Wildlife Service with base funding at $319,000, which is a $65,000 increase to address chronic operation and maintenance needs.**

The Quinault Indian Nation requests transfer of the Quinault National Fish Hatchery to the Fish and Wildlife Service as this agency has the technical and scientific expertise to serve hatchery operational requirements. The operations and maintenance $65,000 base increase addresses operational deficiencies and improves service capacities.

The proposed appropriations report language: "The Committee directs the federal management transfer of the Quinault National Fish Hatchery from the Bureau of Indian Affairs to the Fish and Wildlife Service with a Fiscal Year 1989 base of $319,000, a $65,000 increase to address operation and maintenance requirements."

**4. Provide that the FY88 Quinault law enforcement increase of $175,000 be included in the FY89 base and increase judicial services by $128,000 to strengthen the tribal justice system.**

A basic function of government is an effective law enforcement and justice system. Tribal jurisdictional rights and responsibilities are under increasing attack by those opposed to tribal government existence and exercise of sovereign powers. The Congress provided a most needed increase of $175,000 for Quinault law enforcement in FY88, and we request that this provision be maintained in FY89 as an addition to our operational base.

The Quinault Nation's judicial services has had no increase for nine years creating a most fragile and vulnerable justice system. We request an increase of $128,000 to address additional needs for court personnel and operations. An efficient justice systems allows tribes to effectively handle the most sensitive of government jurisdiction: equitable management of civil offenses and criminal actions.

We appreciate your consideration of our expressed requests for the fiscal year 1989 appropriations. The Quinault Indian Nation testimony presented at the House Interior and Related Agencies

Appropriations Subcommittee hearing of March 2-3, 1988 is enclosed for further reference.

Sincerely,

Joseph DeLaCruz

Joseph B. DeLaCruz
President

## STATEMENT OF THE STANDING ROCK SIOUX TRIBE

The Standing Rock Sioux Tribe appreciates the opportunity to testify before this Committee.

### Bureau of Indian Affairs

1. Municipal, Rural and Industrial Water Supply. The Standing Rock Reservation does not have decent domestic water supply for its people. Water quality is unsatisfactory, and this raises serious health concerns. In addition, inadequate water supply constrains new housing on the Reservation, impairs our livestock industry and deters other economic growth. We request $8 million to construct Phase I of a municipal, rural and industrial water system to alleviate these problems.

In Public Law 99-294 Congress authorized $20.5 million for MR&I systems at Standing Rock and two other Reservations, thus recognizing the dire need in this area. Following discussions with the other Tribes which were authorized systems in PL 99-294, the Standing Rock Sioux Tribe has set priorities for development of its MR&I system.

Our present request is for $8 million to construct Phase I -- which includes the basic supply system (intake, treatment, and core pipeline) and service to the community of Cannonball from an existing water supply at Fort Yates. Service to Cannonball has been given highest priority because of severe problems with the present water supply at that location. Phase II of the project will include service to other communities and rural needs on the Reservation by extension of the basic supply system.

The Tribe has been moving forward on MR&I. In 1985 the Tribe completed a reconnaissance evaluation of an MR&I system to serve as a water supply for Indian and non-Indian communities and homes on the Reservation. The project will serve a projected Indian population of 13,450 and non-Indian population of 3,838. The system will meet domestic and livestock needs, at a total estimated cost of $42,020,000.

The Tribe also is undertaking the more detailed planning of the MR&I system, under a 638 contract with the BIA, with funds authorized by PL 99-294. The 638 contract calls for the completion of MR&I planning this fiscal year. Therefore, our request for FY 89 construction funds is timely.

Provision of an adequate water supply will alleviate health concerns, end taste and discoloration problems in the water, stabilize our livestock water supply and provide us with the reliable water supply which is required for industrial development. The need for this project is universally accepted, and we urge your support to enable us to bring decent water to our people.

2. Eagle Unit Irrigation Development. The Tribe requests $1.5 million to complete the 1,595 acre Eagle Unit irrigation project.

In 1982, we began development of the Fort Yates Unit. This Unit, with 952 acres, is in full operation.

In 1985, Congress appropriated $1.76 million for the Eagle Unit -- a project planned for 1,595 acres, located near Wakpala, South Dakota. It is emphasized that the main pumping station, main pipeline and most of the electrical system necessary to serve the full 1,595 acres are constructed and operational. Moreover, 485 acres are now being irrigated with sprinkler systems.

Last year the Tribe requested funds in excess of $2 million to complete the project. We appreciate that this Committee supported, and Congress provided, $1 million in FY 88 for the Eagle Unit. With this money the Tribe will develop an additional 500 acres or more this year. We request an additional $1.5 million to enable the Tribe to complete the Eagle Unit as planned. We would be pleased to supply detailed project completion costs to the Committee.

3. Law enforcement. The Administration's budget calls for a tiny increase in BIA law enforcement funds for Area Office operations. The real unmet need is on the Reservations, not in the Area Offices. We request an additional $225,000 for law enforcement at Standing Rock, to fill three vacant police officer positions and to provide adequate detention guard staffing.

Standing Rock is a Reservation with 2.3 million acres with an Indian population of about 9,000, in widely scattered communities. Because of budget cuts, three of the 15 police officer slots (including supervisory slots) are vacant. Funds are needed to fill these positions.

In addition, funds are needed to enable the Tribe to maintain adequate detention guard and dispatcher staffing. This will enable the Tribe to meet its commitment to provide dispatchers and jailers under a cooperative agreement with the City of McLaughlin. This cooperative agreement arose out of severe tensions between the Indian community and law enforcement personnel of the City of McLaughlin -- a majority non-Indian community on the Reservation. To ease tensions, a mediation agreement was reached calling for cooperation between the Tribe, BIA and City on law enforcement. Under the Agreement, the Tribe must provide dispatchers who are essential to the coordinated law enforcement effort. Congress has recognized the importance of this, providing $50,000 for the dispatchers in FY 1988. We urge your continued support.

4. Water Resources Planning. The land and water resources of the Standing Rock Reservation are our most valuable assets. We request an additional $100,000 for several purposes: (1) We will evaluate the poor water quality of the Grand River ($20,000). (2) We are working with the U.S. Soil Conservation Service on a soil survey of 290,000 acres in Sioux County and seek to increase emphasis on the irrigability of these lands by sampling soils to 25 feet and conducting permeability tests ($30,000). (3) To implement our reservation-wide water code we need to map the subbasins of the Reservation and adopt water use and water quality standards ($20,000). (4) With Lake Oahe on our eastern border and providing us with no economic benefit, it is imperative that we (a) investigate increased hydropower generating capacity to the existing federal facilities and (b) investi-

gate other means of obtaining economic benefit from the Oahe project ($30,000).

5. Trust Land Redevelopment. We request an additional $300,000 for trust land redevelopment. These funds are needed to continue our efforts to eradicate prairie dogs and noxious weeds, to develop our range land and to address other special needs of trust landowners. This would be the second phase of efforts initially funded in FY 88.

6. BIA School Staff Housing. We request an additional $100,000 for the planning and design of staff housing for BIA teachers in Fort Yates. Currently, many of our teachers live off the Reservation because of the lack of available housing. With long travel to work, these teachers are less accessible to our students. Also the lack of housing also makes it more difficult to recruit the quality teachers our children deserve. The funds are needed to analyze the most cost effective means to alleviate this problem.

7. Indian Business Development Grants. The Tribe strongly opposes the Administration's proposal to delete the full $7 million from this program. Such a cut would leave the BIA without any economic development grant program. The Tribe urges the Committee to maintain and strengthen economic development programs. We also note the importance in this regard of S. 721, the Indian Development Finance Corporation Act, which would provide a needed source of capital for Indian economic and agricultural development.

8. United Tribes Technical College. The Tribe strongly opposes the Administration's proposed cut of $260,000 for UTTC (formerly known as United Tribes Educational Technical Center). As a member Tribe, we are proud of the education and training provided by UTTC. The proposed cut is totally unjustified.

9. Institute for Tribal Government. The Tribe opposes the Administration's proposal to establish such an Institute at a cost of $500,000. In these times of severe budget cuts, such an institute is a misallocation of resources. The money should go to unmet tribal needs.

## Indian Health Service

1. Tuberculosis Eradication. The Tribe requests $40,000 for a tuberculosis control program. A recent study by the Center for Disease Control found that an "excessive number of tuberculosis cases occurred in 1987 on the Standing Rock Sioux Reservation." In one Reservation community, the tuberculosis rate was ten times the national rate among Indians. This terrible disease, must not go unchecked. Existing health resources simply cannot deal with the problem. The funding is needed to hire a tuberculosis control worker and clerk, whose responsibilities would include seeing that tuberculosis patients take the appropriate medication, working on investigation and screening, providing family services to TB patients. TB should not be allowed to spread at Standing Rock for want of $40,000.

2. CHR Program. The Tribe opposes the Administration's proposed $1.1 million cut in the CHR program. The CHR program provides vital followup medical care and health education. The CHR's are the vital communications link between our people and the medical staff at the clinics. CHR's also fill the unmet need regarding transportation of people in need of medical care. The program should be enhanced and expanded, not cut.

3. Federal Tort Claims Coverage. The Tribe strongly supports extending Federal Tort Claims Act coverage to tribal contractors. The Administration proposes to delete the Federal Tort Claims provision which is contained in the FY 88 Omnibus Appropriations Act. Insurance for tribal contractors is expensive and, in many cases, not available at all. We urge the Committee to continue Federal Tort Claims Act coverage for tribal contractors on a permanent basis.

4. Contract Care. Contract care has been chronically underfunded. In FY 87, the Standing Rock Service Unit for a time was completely without contract care funds. We request an additional $10 million nationwide in contract care to begin to address this problem. In addition, under the current budget process, the amount IHS requests for contract care is based on budget constraints. Congress is never informed of the level of need. Therefore, we urge the Committee to require IHS to report to Congress, for each area, the actual dollar need for contract care, and any projected or actual shortfalls in funding. Only with this information can Congress protect against shortfalls which endanger the well-being of Indians in need of medical care.

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## STATEMENT OF MICHAEL R. CLEMENTS, PRESIDENT, INTERTRIBAL TIMBER COUNCIL

Mr. Chairman, Members of the Subcommittee, I am Michael Clements, President of the Intertribal Timber Council. This testimony is requesting the restoration of $2,538,000 pro rata to Timber Sales Management in the FY 1989 B.I.A. Tribe/Agency Forestry budget and $3,150,000 to the FY 1989 Forest Development program in the B.I.A. Division of Forestry, to bring both programs back to the FY 1988 level.

I want to express the thanks of all the timber Tribes to this Subcommittee for your efforts made in the FY 1988 B.I.A. budget to preserve the integrity of the Federal government's trust obligations to the Indian forest resource. As you may recollect, the Administration proposed cutting B.I.A. Forestry by $11 million, would have charged the Tribes for the performance of trust functions, and even floated the idea of contracting the Forestry program to private sector entities. Had the Administration succeeded in that request, the concept of the federal trust responsibility would have been dealt a crippling blow, and the timber Tribes would have been economically devastated. However, you allowed none of that, and we extend to you our thanks for your good common sense.

### ABOUT THE INTERTRIBAL TIMBER COUNCIL

The Intertribal Timber Council (I.T.C.) is made up of fifty two Tribes and Alaska Native organizations which collectively hold more than 90% of the six million forested acres under Bureau of Indian Affairs trust management that has a biological annual allowable cut of one billion board feet. In Alaska, timber from native organizations and thousands of trust allotments perhaps produces a similar figure. To all our membership, timber is the mainstay of our economies, and assuring its proper management and preservation is our foremost concern.

### 1.) RESTORE $2,538,000 TO TRIBE/AGENCY FORESTRY TO MAINTAIN THE FY 1988 LEVEL.

To continue that proper management for FY 1989, the I.T.C. requests that $2,538,000 be restored to Timber Sales

Management in Tribe/Agency Forestry. We believe adding that amount will bring Tribe/Agency Forestry back to its FY 1988 level. Although the B.I.A.'s budget documents are inadequate to allow tracking budget changes from FY 1988 amounts to FY 1989 requests, we ask that $2,538,000 be restored to Timber Sales Management in Tribe/Agency Forestry because:

- a cut of that amount was made by the B.I.A. Central office after Tribes had already prioritized their FY 1989 funds,
- The reason for the reduction cited by the B.I.A. in its FY 1989 Justification is an obvious misstatement,
- Timber Sales Management is an essential federal trust activity in assuring that Tribes fully benefit from their forest asset,
- and B.I.A. mismanagement has caused the allocation of the reduction to be grossly inequitable.

**$2,538,000 CUT MADE BY B.I.A. AFTER PRIORITIZATION**

As the attached B.I.A. memo dated September 14, 1987 depicts, the Central Office reduced Tribe/Agency Forestry by $2,538,000 after the Tribes had already included that amount in their FY 1989 priorities. When the B.I.A. sent Tribes their planning figures for their Indian Priority System programs for FY 1989, it failed to include in the Forestry planning figures the $7,538,000 cut that the B.I.A. had proposed for FY 1988. Please note that the inclusion of the $7,538,000 in the Tribe/Agency Forestry planning figures only maintained that program at its FY 1987 base level.

When the B.I.A. Central Office noticed that it had failed to cut the FY 1989 planning figures for Tribe/Agency Forestry, it was well after the Tribes had finalized their priorities under the Indian Priority System. While the Office of the Secretary allowed $5 million to remain in the planning allocation, it did require that the remaining $2,538,000 be taken out. So, the B.I.A. went back and cut that much out of the Timber Sales Management segment of Tribe/Agency Forestry. Because that amount had already been prioritized, the B.I.A. figured the only way to make the cut after the fact was a pro rata reduction, which it then carried out.

**JUSTIFICATION MISSTATES REASON FOR TRIBE/AGENCY FORESTRY CUT**

Although the B.I.A. FY 1989 Justification states on page 159 that the reduction in Tribe/Agency Forestry is due to the transfer of $2.4 million back to Forest Development, actual events and other data contained in the Justification do not support that statement. First, the transfer of the $2.4 million back to the special Forest Development program in the Division of Forestry was actually carried out by Congress in the FY 1988 Appropriations bill. When the B.I.A. received its Forestry funding for FY 1988, the transfer had already been effected. This is also reflected in the Justification on page 124, where it shows the FY 1988 actual appropriation for Forest Development to be $8,150,000, which is the restored amount, and on page 151 where it shows the FY 1988 actual appropriation for Tribe/Agency Forestry to be $20,842,000. Further, the Internal Transfers section of the Justification does not show any transfer of $2.4 million from Tribe/Agency Forestry to Forest Development in the Division of Forestry.

For the above reasons, we believe that the B.I.A. cut $2,538,000 from Timber Sales Management in Tribe/Agency Forestry for FY 1989, that the cut was made after the Tribes had prioritzed those funds because the B.I.A. failed to make the cut in the planning amounts sent to Tribes, and not, as the Justification asserts, because of a transfer of $2.4 million to Forest Development from Tribe/Agency Forestry.

## TIMBER SALES MANAGEMENT IS A CRITICAL TRUST FUNCTION

The I.T.C. requests that $2,538,000 be restored to Timber Sales Management in Tribe/Agency Forestry because those activities are essential to the sale of our trust forest assets. The Bureau's Timber Sales Management duties include cruising and appraising our forests, executing and supervising contracts, scaling the fallen timber coming off our lands, and collecting receipts. These activities are critical to assuring that Tribes receive full value for the harvest of their forest asset. Yet, for FY 1989, the B.I.A. is proposing to reduce funding for this manpower-intensive activity by 25%. This is occurring at a time when the market for timber is extremely strong. In fact, according to the Forestry tables on page 128 of the FY 1989 Justification, the harvest volume of Indian timber is expected to be 8% over the FY 1988 level and 15% above the FY 1987 level.

At a time when increased volumes of timber are expected to be sold off of Indian lands, we do not believe the Bureau will be able to absorb a 25% reduction in sales management and still adequately perform its trust responsibility. That the Bureau should propose this cut in timber income related activities at the very same time it is under a Senate investigation for shortchanging Indian people for inadequate management of it's oil and gas royalties responsibilities is truly astounding.

## POOR B.I.A. IMPLEMENTATION OF IPS FORESTRY CHANGES

A final point on the proposed cut in Timber Sales Management is that its allocation by the Bureau would result in gross inequities among the Tribes. Beginning with FY 1989, the B.I.A. is splitting what has been a single amount for Tribe/Agency Forestry into five new subcategories: Forest Development (non-backlog), Forest Protection, Forest Management Inventory and Plans, Timber Sales Management, and Forest Program Management. In implementing this system, the Bureau failed not only to consult with the Tribes, but it failed to consult with its own field staff. As a result, there was no guidance on how to implement the new subcategories, and problems have developed. Some locations spread their IPS Forestry allocation among all five subcategories, placing the amounts where they thought they would be needed. But other locations, with no guidance, elected to place all their IPS Forestry funds in Forest Program Management, believing that to be an all-encompassing general account. As a consequence, some Tribe/Agency locations did not allocate any funds to Timber Sales Management, while others placed considerable funds in Timber Sales Management.

## TIMBER SALES MANAGEMENT CUTS INEQUITABLE AMONG TRIBES

When the B.I.A. Central Office then made its after-the-fact reduction of $2,538,000 in Tribe/Agency Forestry, and chose to take it all out of Timber Sales Management on a pro rata basis, the cut fell not at all on some timber Tribes and fell very heavily on others. As a matter of fact, it fell especially heavily on the larger forested Tribes that had emphasized Timber Sales Management in their Forestry IPS. Now, instead of being able to meet the strong market as they had planned, they find themselves particularly hindered, bearing the largest parts of the $2,538,000 cut. The best means of correcting this inequity is to restore the $2,538,000 in the same manner in which it was cut.

## 2.) PROPOSED FOREST DEVELOPMENT CUT DOES NOT ADD UP

With respect to Forest Development, the I.T.C. requests the $3,150,000 cut proposed by the Administration be restored so that the Congressionally mandated regeneration of B.I.A. mismanaged forest acreage can continue toward a completion target in the mid-1990s. The Bureau's assertion that a reduction of $3,150,000, to an annual level of $5,000,000, will only delay the completion date from 1996 to 1998 simply does not add up. Eight years of funding (1989 to 1996) at $8.15 million equals $65.2 million. Ten years of funding (1989 to 1998) at $5 million equals $50 million. The Bureau does not explain how it plans to complete the same task with $15.2 million fewer dollars. (The B.I.A. has previously testified that, at $5 million, completion would be sometime after the turn of the century.) We believe that it cannot. So that the elimination of the backlog can be completed as Congress intends, the I.T.C. requests the restoration of $3,150,000 to the special Forest Development program in B.I.A. Forestry.

**FOREST DEVELOPMENT DELAY COSTS TRIBES LOST RECEIPTS**

Each year's extension of the backlog completion date delays the restoration of that acreage to the forest under cyclical management. The addition of acreage to a forest, even if in seedlings, allows an immediate increase in the harvest of mature timber. So, for each year the restoration of backlog acres is delayed, Tribes are unable to increase their cut, thus losing stumpage revenue. This loss is immediate and irretrievable, and a completion delay from 1995 to 2000 could cost the Tribes between $7 million and $13 million in receipts and several times that amount in reservation and local employment income. To preserve the Congressional initiative for the timely regeneration of timber acreage mismanaged by the B.I.A., and to provide the related income to the Tribes, the I.T.C. requests the rejection of the B.I.A.'s proposed $3,150,000 cut in Forest Development.

We hope you will be able to honor our request. Thank you for this chance to testify, and thank you for your past support.

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SEP 14 1987

Memorandum

To: Area Budget Officers

From: Acting Chief, Division of Program Development and Implementation

Subject: FY 1989 Budget Targets

The FY 1989 planning figures which were provided to you with my letter of September 1, 1987, require some clarification, specifically in Line Code 44, Timber Sale Administration.

The FY 1988 tentative figures were overstated, because they included $7,538,000 for forestry which was not included in the FY 1988 budget request (see page 31 of the FY 1988 budget justification).

In the Bureau's planning allowance for FY 1989, the Secretary agreed to a restoration of $5,000,000 of the $7,538,000 reduction. Therefore, it was necessary to distribute among the forestry programs the portion of the reduction that was sustained ($2,538,000). Pro-rata reductions were made to agencies based on the forestry dollars included in their FY 1988 tentatives.

If you have specific questions about the amount of adjustment made to your agencies, you may call Kay Keely on 343-3641 or Todd Heaton on 343-3629.

Attachment

Linda L Richardson

# STATEMENT OF FAITH THOMPSON CAMPBELL, NATURAL RESOURCES DEFENSE COUNCIL

The National Park System has about 330 units totalling 79 million acres. Some park units provide vitally important habitat to many wildlife and plant species. Recent studies indicate the need for active conservation programs to ensure survival of wildlife in the parks, which often serve as important refuges for species and communities already stressed or eliminated elsewhere. This need is particularly acute in three parks where the wildlife and flora are threatened by invading alient animals and plants and by unregulated human use: Hawaii Volcanoes N.P., Haleakala N.P., and Virgin Islands N.P.

## The Hawaiian Parks

Ninety-five percent of all native Hawaiian terrestrial species and subspecies are endemic -- the highest level of endemism for any area in the world. Evolutionary biologists consider Hawaii to be at least as important to understanding evolution as Darwin's fabled Galapagos Islands. Island organisms often are particularly vulnerable to extinctions caused by activities of humans or the animals and plants they bring with them. An unfortunate consequence is that about half of all Hawaiian species of birds and plants are already extinct or endangered, and the same is probably true for the Islands' terrestrial and freshwater invertebrates. Both of Hawaii's native land mammals -- a seal and a bat -- are also endangered. The native reptiles -- sea turtles -- are also threatened. Hawaii has no native amphibians.

Development pressures are severe, and state agencies are just beginning to show an active interest. Therefore, opportunities to save what is left of Hawaii's biological diversity exist largely in the two "natural" national parks. Unfortunately, destruction of these parks' ecosystems has progressed so far that active management must replace reliance on natural processes if we are to prevent widespread destruction of the parks' biological wealth.

Consequently, the National Parks in Hawaii must be the highest priority in any NPS program to conserve biological diversity. Haleakala National Park, particularly its Kipahulu District, is the highest priority area in the entire National Park system from the perspective of conserving biological diversity. The area was added to Haleakala N.P. in 1969 because of its biological resources and relatively pristine condition. However, invasion since then by feral pigs and goats now threatens destruction of the area. These resources, the threatened destruction, and needed conservation programs were described in greater detail in Annex 1 of NRDC's testimony last year. Hawaii Volcanoes National Park has advanced further in ungulate control. However, it is threatened by exotic (alien) plants, which are smothering native vegetation. The environmental effects of these invasive exotics were described in Annex 2 last year.

For FY1988, the Congress responded to this crisis by providing substantial increases in Park Base funds. Unfortunately, the Administration has not recognized that control of exotic animals and plants is a continuing responsibility and has removed these add-ons from the FY1989 request. It is up to the Congress to restore and increase vitally important Park Base funds for these two units to ensure protection for the parks' resources.

For Haleakala N.P., the Natural Resources Defense Council last year requested an increase in Park Base funding of $512,000 to enable Park staff to maintain fences and to remove the goats and pigs already inside the Park and control alien plants in the Crater district. The Congress provided about half the requested funds: $250,000. With these funds, staff at Haleakala will be able to complete goat eradication projects in the Crater, but will be able to carry out only some of the needed work in the biologically rich Kipahulu Valley area: $128,000 worth of fence maintenance and feral animal control ($61,000 short of needed funds); and only $10,000 for exotic plant control in Kipahulu and Crater (out of a total project cost of $160,000. The staff will undertake no effort to protect endangered birds nesting in the Crater from cats and mongooses, a project budgeted at $64,000.

For FY1989, we request restoration of the $250,000 contained in the current year, plus an additional $275,000 to enable full implementation of the plan. These funds must be in Park Base, not taken from fee income or other sources, so that permanent staff may be hired to carry out these continuing programs.

For Hawaii Volcanoes National Park, the Congress provided a $226,000 increase in Park Base for pig control projects. Hawaii Volcanoes personnel will utilize the additional funds for pig control to intensify efforts in the nine fenced units that represent 29% of pig habitat in the Park. Park personnel hope to remove the last remaining pigs from these areas during this year. Success will not mean the end of the need for funds, however. These areas must be monitored to detect any pigs that return; the fences must be repaired or replaced periodically; and pigs must be eliminated from other parts of the Park.

Park resource managers consider it essential to initiate a major program to control exotic plants, which are smothering native vegetation. For the current year, the Congress provided an additional $24,000 for this work. Park personnel are now able to intensify invasive plant control efforts in eight Special Ecological Areas totaling 9,000 acres (4% of park). These SEAs represent some of the biologically richest areas in the Park and also serve as models for management of other areas inside the Park and elsewhere. The new funds will enable the staff to begin plant control efforts in some of the eleven SEAs to be designated in coming months. In sum, these 29 SEAs will cover 29,000 acres, or 13% of the Park.

The FY1988 funding increase, while welcome, is still inadequate to protect the Park's precious resources. Exotic plant control is very labor-intensive, involving regular "sweeps" by teams of four to six trained people through extremely dense vegetation. The need to find every seedling of the target species adds to the time involved.

Therefore, we request for FY1989 that Congress restore the $250,000 contained in the current appropriation, plus appropriate an additional $150,000 to fund high-priority exotic plant eradication efforts in the 29 SEAs. Once again, these funds must be in Park Base rather than other accounts to enable the hiring of permanent staff.

The Congress can be proud of the role it has played in enabling the National Park Service to address the problems of invading animals and plants. The NPS' success, even though still on a modest scale, not only helps to preserve the unique biota of the two parks themselves, but also serves as a model of natural area management for the state, The Nature Conservancy, and the U.S. Fish and Wildlife Service. With the recent increase in attention to conservation of Hawaii's unique biota, Congress can help the National Park Service continue to lead the way.

## Virgin Islands National Park

Virgin Islands National Park also protects tropical ecosystems that are on the verge of disappearing outside Park boundaries. The forests of the Park represent the most extensive protected forests in the all the Virgin Islands and thus are vitally important habitat for both resident and migratory animals, including the nearly extirpated iguana and migratory birds. The Park's coral reefs are spectacular; its sea grass beds and beaches provide feeding and nesting habitat for threatened green sea turtles.

The Virgin Islands call themselves "America's Paradise," but they are under severe development pressures. These pressures threaten to destroy the fragile ecosystem of Virgin Islands N.P. The Park's scandalously low operating budget -- the Administration has proposed $1,573,400, plus possibly $78,000 in fee income -- prevents the staff from responding to these threats or even providing the standard of visitor services normally assumed in national parks. Furthermore, home construction on the extensive private inholdings threatens the integrity of the Park's forests and coral reefs (which are killed by siltation from construction sites).

The most urgent funding need is to implement measures identified by past research to protect the Park's fragile marine life. In 1987, 30,000 boats visited the Park for up to 14 days, each dropping 1 or 2 anchors daily in the bays. Research has shown that these anchors are doing irreparable damage to coral reefs and sea grass beds that support threatened green sea turtle. The grass beds have been so plowed up by anchors that the turtles are now eating the sea grass faster than it can grow back. The solution is to install marker buoys restricting boaters' access to the bays and mooring buoys to which boaters would be required to tie (rather than anchor).

Unfortunately, current funding is not adequate to allow this research to be put into practice. FY1988 funding -- $18,000 -- allows only for installation of marker buoys, not the desperately needed mooring buoys. The Park needs one-time funding of $125,000 to install the 100 mooring buoys.

Once the buoys are installed, the Park must have adequate funds for maintenance -- estimated at $25 per mooring buoy, considerably less for the marker buoys, or $3,000 per year. In addition, the Park needs at least two additional biological technicians -- at a cost of approximately $38,000 per year -- to ensure that visitors comply with the buoy restrictions.

Overfishing of conch and lobster, another threat, may soon be curtailed. The Virgin Islands government has declared a five-year moratorium on conch fishing and is developing a lobster conservation program.

To protect the unique terrestrial ecosystem, the Park must expand its mongoose control program. Top priority is given to protect turtle nesting beaches and other areas into which the iguana could be reintroduced. Present efforts appear to be having some success; this year, for the first time, iguana are being spotted by visitors on the north side of the island. It is important to expand the program to ensure its success; this would be possible using the two resource technicians mentioned above plus $10,000 for transportation, and purchase of 50 new traps.

In sum, Natural Resources Defense Council recommends an increase to Park Base of $52,000, plus a one-time increase for FY1989 of $125,000 for installation of the mooring buoys. As explained above in the discussion of the Hawaiian parks, the proposed activities must be carried out continuously for years, or there is no point in doing them at all. Consequently, budget increases must be in Park Base rather than from fees in order to allow hiring of the necessary permanent staff.

The solutions to marine conservation problems developed by the research and management staff of Virgin Islands National Park's have begun to receive international recognition. In 1987, the park hosted a coral reef rehabilitation seminar in its new Biopshere Reserve center. In recent weeks, representatives from the U.S. Agency for International Development, several Caribbean islands, and the U.S. Virgin Islands territorial government have met with the staff to learn how to apply these techniques to managing their own development and conservation problems. It would be tragically ironic if others were to use this research while Virgin Islands N.P.'s own resources continued to decline due to lack of a few hundred thousand dollars.

These requested increases represent a bare minimum intended to address the most urgent resource management problems. Virgin Islands N.P. is severely understaffed in all areas; it even lacks a janitor to clean the visitor center, public restrooms, and staff offices. There are only two trail and road maintenance personnel to handle 23 miles of high-maintenance trails and 13 miles of road. The science and resource management staff (three people) must share a secretary with the supervisor. The Park received 750,000 visitors in 1987; it clearly needs a larger overall operating budget.

## STATEMENT OF DR. WILLIAM BURNHAM, PRESIDENT, THE PEREGRINE FUND, INC.

Mr. Chairman, thank you for the opportunity to submit a written statement on the funding needs of the endangered species recovery programs for the Peregrine Falcon in FY89. The amount requested as an add-on to the budget of the U. S. Fish and Wildlife Service for captive propagation of falcons is $300,000.

The Peregrine Falcon recovery program continues to be one of the most successful endangered species endeavors. The falcon has literally been brought back from the brink of extinction through the combined efforts of government and private cooperation. Last year great strides again occurred as another increase in the number of breeding falcons was seen. Each year brings us closer to an inevitably successful conclusion, assuming funding can be maintained until enough falcons are released in the wild to establish a self-sustaining population. The engine driving the recovery program is the captive propagation of falcons, and the add-on is the fuel which ignites that engine and the entire program. With the add-on as the base, the additional funding, cooperation, personnel, and other facets are built.

In FY88 the cost to operate the three programs will be about 1.1 million dollars, of which the U. S. Fish and Wildlife Service has contributed $300,000 as a consequence of the add-on approved by the Congress last year. The remainder of the funding, as before, is being covered by contracts from regional offices of the FWS, from other state and federal agencies, and gifts from private sources. Without the add-on it would be impossible to secure these "matching funds", and the Peregrine recovery efforts would be terminated prematurely.

In 1987 at the Boise, Idaho, and Santa Cruz, California, facilities, 81 females laid approximately 580 eggs, of which about 380 were fertile (65%), 261 hatched (69%), and 258 survived (99%). Research funded by a private grant should significantly increase hatchability for spring of 1988. In addition to captive production, wild eggs were received from 23 wild Peregrines totaling 76 eggs, of which 44 hatched and 42 survived, all of which were released. Many of the eggs from California were chin-shelled because of continued contamination. Combining captive and wild young, 305 Peregrines were hatched and 300 survived. Since 1974 we have produced well over 2,500 Peregrines for breeding and release.

Last spring and summer we released 300 Peregrines to the wild in 19 states. Survival of released birds was about 83%. Of the total, 239 were released by the hack method, 53 were fostered to wild Peregrines, and eight were cross-fostered to Prairie Falcons. Total falcons released per state were: California 70, Colorado 39, Idaho 18, Maine 2, Massachusetts 13, Montana 23, North Carolina 18, New Hampshire 7, New York 12, Nevada 6, Oregon 10, South Carolina 5, Tennessee 6, Utah 19, Virginia 5, Vermont 14, Washington 5, West Virginia 3, and Wyoming 25. Between 1974 and 1987 we have released approximately 2,260 Peregrines into 28 states and the District of Columbia, of which about 1,850 or 82% were successfully released.

In the states where we are working where less than 15 occupied sites were known in 1975, in 1987 there were approximately 232 territories identified as being occupied by pairs and single birds. Of those locations, about 192 are known to be occupied by pairs, of which approximately 150 laid eggs and over 100 pairs produced 220 plus young without assistance, while an additional 25 pairs received 48 fostered young. Omitting fostered sites, a minimum average of 1.14 young were produced for all pairs and 2.20 young produced for producing pairs. This level of reproduction should cause a gradual increase in the population, and combined with released falcons create a self-perpetuating population of Peregrine Falcons. Results for select states for productivity for all pairs are: 1.3 young/site for 62 pairs in California, 1.8 young/site for 22 pairs in Colorado, 1.9 young/site for 62 pairs in California, and 1.8 young/site for 10 pairs in Washington. We have now established breeding Peregrines in 20 states and at least one Canadian province.

We are very pleased with the results and hope that the Congress feels the same. Through concern, cooperation, and this effective partnership between the government and the private sector, a recovery will be accomplished of a magnificent creature of our wildlife heritage belonging to current and future generations of Americans. We respectfully urge your committee to continue support of this important program.

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## STATEMENT OF JOHN P. THOMAS, EXECUTIVE DIRECTOR, NATIONAL ASSOCIATION OF COUNTIES

The National Association of Counties would like to comment for the record on FY 1989 Interior and Related Agencies appropriations as called for in the President's proposed budget.

Mr. Chairman, I would like to start by pointing out our concern for federal budget deficits and our support for your efforts to reduce this huge burden. County commissioners around the country have to operate their counties on a balanced budget basis. Our members have consistently expressed their willingness to accept a fair share of the cuts which have to be made in the national interest.

As you will recall in past testimony and correspondence with your subcommittee, NACo has not asked, demanded, or pleaded to increase the appropriations in the natural resource programs which provide direct benefit to public lands counties. The payments-in-lieu-of-taxes (PILT) program authorization has not increased since its enactment in 1976 despite the fact that inflation has eroded its actual dollar value by more than 30%. As in past years, we support the administration's request for $105 million for the program in FY 1989. We continue to support that level of funding despite the fact that the costs of county services continue to rise and the ability of counties with tax exempt federal lands to raise revenue is limited.

Obviously, the other priority programs are those which share receipts with state and local governments: forest, grassland, mineral, and other receipts programs. These programs provide much needed revenues for the heart of county budgets - funds for schools and roads. These funds are absolutely critical for counties. And they are the result of long standing, intergovernmental partnership agreements. In addition, the sales and leasing programs which generate these revenues do, in fact contribute substantially to the reduction of the federal deficit.

It has long been understood by Congress that shared receipts are a vital and necessary contribution to community stability in areas where the impacts of federal policies dominate public and private sector economic activity. While the whole country benefits from having a steady and dependable supply of timber products, it is the communities near the National Forests and BLM forests that supply the manpower and infrastructure to harvest the timber.

We applaud this year's budget which indicates that the administration will not request a change in the receipt sharing formulas from "gross to net". It would be comforting to know that that issue might be permanently put to rest. However, we will assume that is not likely to occur and want to indicate to you our commitment and resolve to oppose any change in the formulas for natural resource payments to state or local governments. Our backs are to the wall on this issue and we will react accordingly. Again, we would emphasize that these natural resource programs contribute to deficit reduction by bringing funds into the federal treasury. We would hope that Congress would continue to recognize that sharing receipts is a solid intergovernmental partnership that is working to the benefit of all parties.

Mr. Chairman, we would like to point out that last year the Appropriations Committee took special recognition of the plight of counties in the fire ravaged areas of northern California and soutnern Oregon. An amendment was included that those counties affected would be able to receive the full 25% of gross receipts from fire salvage sales. Normal salvage sales are treated differently by the Forest Service in that they are allowed to deduct their administration costs before calculating forest receipts. Though the volume of salvage sales in FY 1989 is less, we would again ask that the 25% of gross amendment be included in the appropriations bill to protect those counties from a dramatic loss of forest receipts.

Thanks for your consideration, Mr. Chairman, and we would be happy to supply you with any information you might need. Again We support and encourage your efforts for a bipartisan budget and appropriations process this year.

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## STATEMENT OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS

The American Society of Civil Engineers (ASCE), on behalf of the American Association of Engineering Societies (AAES), National Society of Professional Engineers (NSPE), and American Water Works Association (AWWA), representing over one-half million engineers, strongly opposes the Administration's proposed FY89 budget cuts for the U.S. Geological Survey's surface water data collection and analysis activities. We believe these cuts would limit unwisely the nation's future ability to manage its precious water resources, and could, in the long run, cost the nation more through over-built or inadequate water facilities. This is a classic case of penny-wisdom and pound-foolishness. At a minimum, for fiscal 1989 Congress should maintain fiscal 1988 funding levels of $22.57 million in the Federal Program for data collection and analysis and $59.64 million in the Federal-State Cooperative Program.

The cost of collecting water data is not great, but the impact of such data is immense and far-reaching. These data are critical to a wide range of activities, including reservoir operation; water quality and supply studies; water law court decisions; wastewater treatment discharges into streams; drainage structures for highways, bridges and culverts; flood insurance and management studies; detention pond studies for urban runoff control; planning and design of hydroelectric projects; water basin planning and investigation; forensic analysis; environmental impact analysis; and ice forecasting, jam and control studies. How can engineers devise optimum responses, and design the most cost-effective facilities, if they have incomplete and inadequate hydrologic data? The Federal cost of basic water data collection and analysis, $73.2 million in fiscal 1988, or about one-half the water resources investigations budget, pales when compared to the cost of facilities which will be based on inadequate data as well as to the potential loss of property and life that can occur if errors in design result from use of a faulty data base.

Surface water data collection activities are carried out in the Federal Program and the Federal-State Cooperative Program of the U.S. Geological Survey's Water Resources Investigations Division (WRD). The Administration's $19 million FY89 request for the Federal Program is $3.5 million or 16% below the FY88 appropriation of $22.5 million. The Cooperative Program is budgeted at $55.9 million, $3.7 million or 6% below the FY88 appropriation of $59.6 million. Because the Cooperative Program is funded on a 50/50 matching basis with the states, the $3.7 million Federal cut will be matched by the states for a total cut of $7.4 million.

Analysis of the proposed overall U.S.G.S. budget cut of $22.7 million (5%) in fiscal 1989 reveals that $16.4 million or 72% of this cut will come from the Water Resources Investigations function which only comprises 33% of the overall U.S.G.S. budget. In other words, WRD would be burdened by a vastly disproportionate share of the U.S.G.S budget cut, thereby jeopardizing water data collection.

It is difficult to predict exactly which gauging stations will be eliminated under this budget proposal. There is no doubt, however, that hundreds of data collection stations will be threatened. The $3.5 million cut in the Federal Program could result in the loss of 80 continuous recording stations. This would mean that 20% of the continuous recording stations supported by the Federal Program would be eliminated. These are recording stations that are designed to be permanent in order to provide an absolutely reliable data record.

The $3.7 million cut in the Cooperative Program could lead to the termination of 450 to 500 continuous recording posts, or 10% of all continuous recording stations supported by the Cooperative Program. These closures would also destroy the complete reliability of the data that needs to be obtained.

## STATEMENT OF DR. ISHAI OLIKER, PRESIDENT, INTERNATIONAL DISTRICT HEATING AND COOLING ASSOCIATION

District heating and cooling (DHC) is the delivery of heating or cooling energy to multiple building structures via a common distribution system. DHC energy is produced in one or more centralized facilities, often as part of simultaneous electricity production in a process known as cogeneration.

DHC provides a number of benefits to its users, the community, and the nation that makes it attractive when compared with individual building heating and cooling systems. When DHC is combined with electric power production, significant energy savings are attainable: at least 2.5 quadrillion Btu's annually in the year 2010.

The energy, economic and environmental benefits of DHC are considerable. DHC allows communities to use solid fuels such as coal, biomass, and solid waste as energy sources since they can be burned in an environmentally acceptable manner in central DHC stations. Alternatively, domestic oil and gas can be used to fuel high efficiency cogeneration systems supplying DHC. Most importantly, however, the development of technologically advanced DHC is critical to the resolution of a number of interrelated economic development, international competitiveness, energy resource, energy cost, and environmental problems that are simultaneously and collectively facing America's businesses and industries, cities and energy utilities.

If the very large potential economic benefits of DHC in the U.S. are to be realized, the federal government must reinforce its very small present commitment to DHC technology R&D by increasing DOE DHC funding in FY 1989 to a level at which a viable program can be maintained. The International District Heating and Cooling Association has determined that $4.0 million is necessary to fund a viable program. This level of funding is still relatively small when compared with the $10's of millions spent annually on DHC and related technology R&D by the Europeans and Japanese much of which is imported to the U.S.

R&D is needed to reduce construction and operating costs and to provide for flexibility in energy source utilization. New DHC component and system configurations are needed that are cost effective, much more energy-efficient than current designs, and that can take advantage of a wide variety of energy sources. Development of these new components and systems is dependent on research which will adapt advanced materials, electronics, and new thermodynamic principles to DHC applications. DOE research to-date has produced a number of impressive successes. The private sector has extensively supported DOE's district heating and cooling technology R&D program participating through contributions of materials, facilities, and technical expertise. Some of the utilities and private companies working cooperatively in DOE's research endeavors includes: Consolidated Edison, Dow Chemical, Dupont, Owens/Corning, Union Carbide, 3M, B.F. Goodrich, General Electric, Babcock and Wilcox, Thermo-Electron, Puraq and CBI Industries.

### PROPOSED DISTRICT HEATING AND COOLING TECHNOLOGY RESEARCH AND DEVELOPMENT PROGRAM FOR FY 1989

The DHC industry has worked closely with the DOE to develop a technology R&D program which is sharply focused on high priority projects offering excellent opportunities for significantly reducing the costs and increasing the performance of DHC technology. Over the last several years, initial scoping studies and laboratory research projects have resulted in the formulation of numerous high priority projects which now must be moved off the drawing boards and out of the laboratories into proof of concept tests and field tests.

It is a well known fact in R&D that if technology is to make the transition from the laboratory to the field and to the status of proven technology, funding levels must be increased as development progresses from one stage to the next. As a result of the lack of funding in recent years, many promising ideas have not made it past the relatively inexpensive initial stage of paper study or lab test. In both FY 1986 and FY 1987 virtually all of the promising projects given the go-ahead for further development have either had funding requests by researchers cut in half, funding deferred or cut completely. The result of these lean years is a backlog of numerous high priority technology R&D projects. Current levels of funding and present rates of development will delay by many years the commercial availability of these technical solutions to the energy cost and supply problems of today.

In order to facilitate progress in the development of high priority DHC technologies by the DOE, the IDHCA proposes that Congress appropriate $4.0 m for the DOE Office of Buildings and Community Systems/Community Systems/ District Heating and Cooling Program in FY 1989. Furthermore, it is proposed that these funds be allocated among the following areas:

| | |
|---|---|
| Advanced DHC Transmission Fluids .................................... | $ .7 m |
| New DHC System Components ............................................ | $ .9 m |
| New Community Systems Technologies ................................... | $ .6 m |
| Innovative DHC Technology Program Opportunity Notice ................. | $ .8 m |
| Advanced District Cooling Technology Assessment Program .............. | $1.0 m |
| Total FY 1989 Proposed DOE DHC Program Budget | $4.0 m |

### ADVANCED DHC TRANSMISSION FLUIDS ........................................ $ .7 m

DHC systems have predominantly been based on the use of water (or steam) as the energy transmission medium due to its low cost and acceptable chemical, mechanical, and thermodynamic properties. However, several properties of water can be altered significantly through the use of additives which improve its energy carrying capacity and reduce energy losses in the DHC distribution process without unacceptable environmental risks. As a result, piping system size, and therefore cost, can be reduced substantially -- up to 50% in the case of advanced district cooling distribution technologies.

### NEW DHC SYSTEM COMPONENTS ................................................ $ .9 m

In order for DHC systems to successfully compete with individual building systems and foreign DHC technology, they must become more efficient, cost effective and reliable than is possible using existing DHC components. The use of modern materials, advanced electronics and advanced thermodynamic cycles could easily lower the cost of DHC installations by 20-30% while improving DHC energy efficiency and reliability. Examples of specific proposed technology R&D projects which IDHCA considers important and which require higher levels of funding include non metallic/plastic piping, heat pumps, building systems, and absorption chillers.

### ADVANCED DHC SYSTEMS ...................................................... $ .6 m

A recent DOE Report concluded that DHC systems which utilize advanced modular cogeneration systems serving commercial, institutional and residential buildings have the potential to supply up to 25-35,000 MW of electric generating capacity. Overall cogeneration system efficiencies of 85-95% represent about a 30% improvement over conventional space heating boilers and about 50-60% over conventional utility electrical generation plants. However, before these benefits can be made available it will be necessary to develop, modify and integrate a number of energy conversion and distribution system components to form new advanced modular cogeneration and DHC systems. The following high priority projects have been identifed and are proposed for funding in FY 1989: cogenerated waste heat driven compressor technology for heat pumping and air conditioning; triple effect absorption chiller technology; and block-scale cogeneration and district heating and cooling systems.

### INNOVATIVE DHC TECHNOLOGY PROGRAM OPPORTUNITY NOTICE ...................... $ .8 m

The DOE DHC program's solicitation for innovative technology development in FY 1986 was one of the most successful ever fielded by that program. Many new ideas for improving DHC systems not currently included in the DOE program are expected to emerge from proposals solicited from the members of the American DHC industry in FY 1989.

ADVANCED DISTRICT COOLING TECHNOLOGY ASSESSMENT PROGRAM ............... $1.0 m

The magnitude of the economic impact of high cost air conditioning throughout the United States, and, particularly in the Sunbelt States, has only recently begun to be appreciated. During the summer of 1987 the average residential household in the South Atlantic States spent $480 on air conditioning; those in the East South Central region, $580; and those in the West South Central States, $552. The national average expenditure was $430 per household and the total national bill for air conditioning during the summer of 1987 was $17.7 billion. There is every indication that this bill is rapidly growing along with electricity price increases. With no alternative but electricity to produce air conditioning, consumers have no choice but to pay more as rates are continuously ratcheted upward.

The most energy efficient and most cost effective means of reducing air conditioning costs is through the use of advanced district cooling technology. However, before new district cooling technologies can be fully developed it is necessary to assess in detail information on the environment in which such systems will be located -- the urban areas of the Sunbelt.

For this reason, in FY 1988 the Congress appropriated $.6 m for advanced district cooling technology community assessments which will permit initial broad-brush assessments of the applicability of a number of advanced district cooling technologies in 8-10 communities that are representative of the types for which these technologies are being designed. However, funding in such small amounts cannot hope to answer the numerous questions which need to be addressed if a clear idea of the applicability, economics and acceptability of a wide variety of emerging district cooling technologies is to be obtained. Therefore, additional funding will be required for Advanced District Cooling Technology Community Assessments in FY 1989 in the amount of $1.0 m. These funds will be employed in more in-depth technology assessments in communities than was possible in FY 1988.

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## STATEMENT OF GORDON L. NELSON, PRESIDENT, AMERICAN CHEMICAL SOCIETY

The American Chemical Society appreciates this opportunity to present its views on the Department of Energy's FY 1989 budget request for coal research within the Fossil Energy Program. The Society commends the Subcommittee for its support of Fossil Energy R&D.

Coal reserves in our country represent a substantial, but inadequately utilized resource. Development of efficient methods for converting these reserves to fuels and chemicals constitutes a viable means of offsetting the danger to the Nation posed by external control of crude oil supplies. Such an option is not without cost; exploitation of this opportunity will require a stable, adequately supported research climate in which to foster the development of the needed technology.

An often used "buzzphrase" nowadays is "economic competitiveness." Yet it is very clear that, in the long run, the United States cannot be economically competitive without being scientifically and technologically competitive. For example, while the overall U.S. trade balance has plummeted from a surplus of slightly over $1 billion in 1973 to a deficit of more than $150 billion in 1986, the technology-intensive U.S. chemical industry has maintained a consistently positive balance of trade during this period, with an average surplus of approximately $7.5 billion.

Chemistry and chemical engineering have had the advantage of a stable research climate over many decades, supported by both government and the chemical industry. Such long-term support of chemical research has ensured the competitiveness of the industry. Similarly, a well-planned, long-term commitment to coal science and technology will ensure adequate utilization of the Nation's most abundant domestic energy resource.

A true commitment to advanced coal research and technology development requires that each year a substantial portion of monies appropriated for Fossil Energy Coal Research and Development be used to support basic research in coal science and engineering at universities and other research facilities throughout the nation.

Specifically, for FY 1989, the American Chemical Society recommends that the Advanced Research Programs be increased by 10 percent from the FY 1988 funding level of $40.7 million to $44.8 million. The Society recommends that the remainder of the Fossil Energy budget be restored to the FY 1988 appropriated level. (The accompanying Appendix gives a budgetary history for Advanced Coal Research Programs--Advanced Research and Technology Development, Coal Liquifaction Advanced Research, Surface Coal Gasification Advanced Research, Control Technology and Coal Preparation Advanced Research, Combustion Systems Advanced Research, and Fuel Cells Advanced Research.)

The ACS also recommends that 10 percent of the Clean Coal Technology Program be set aside for basic research in this area. For FY 1989 this would correspond to $52.5 million. This action is necessary because many of the mechanisms which generate pollutants from the combustion of coal are not understood. Without this knowledge, it is impossible to develop adequate control strategies.

The American Chemical Society recommends tnat the total level of support for Advanced Coal Research Programs in FY 1989 be $97.2 million. Significant progress could be made in clean utilization of coal if this level of funding is sustained over the next five years. The Society believes that research funded under these these programs should incorporate a strong peer review component, both in reviewing proposed research and in evaluating research accomplishments.

The ACS also believes that priorities should be established for funding basic, long-range coal research and offers the following comments and recommendations:

- Coal should be the cornerstone of the alternative fossil fuel strategy with the ultimate objective of expanding its utilization while reducing pollution.

- The goal of the research program must be a sound foundation of understanding in coal structure and chemical and physical behavior to permit development of novel, more efficient processes and reliable predictive modeling of coal conversion.

- Research components in CLEAN COAL APPLICATIONS in need of increased funding are:

  Mechanisms of Coal Cleaning
  Waste Management
  Chemistry of Polluting Species
  Combustion Modification
  Ash Formation and Properties

- Research components in COAL STRUCTURE AND REACTIVITY in need of increased funding are:

  Coal Characterization
  Volatile Properties and Reactivity
  Char Formation
  Coal Physical Behavior

- Research components in PROCESS IMPROVEMENTS AND NOVEL PROCESSES in need of increased funding are:

    Mechanistic Modeling
    Diagnostics
    Catalysis
    Coal/Solvent Chemistry
    Novel Liquefaction Methods
    Chemicals from Coal

- Increased government support to maintain a viable coal research community is urgent in view of the continuing reduction in industrial support since the early 1980's.

The American Chemical Society urges your continued support for adequate funding of Fossil Energy programs. The costs of implementing these recommendations would be small compared to the potential benefits derived in helping to ensure a stable, long-range energy supply in the U.S. and in reducing the Nation's vulnerability to the uncertainties in foreign oil supplies.

APPENDIX

Federal Support for
Advanced Coal Research Programs (a)
(Dollars in Thousands)

| | Coal Liquefaction Advanced Research | Surface Coal Gasification Advanced Research | Control Technology & Coal Preparation Advanced Research | Combustion Systems Advanced Research | Fuel Cells Advanced Research | Advanced Research & Technology Development | TOTAL |
|---|---|---|---|---|---|---|---|
| 1981 | | | | | | $58,383 | $58,383 |
| 1982 | | | | | | 51,936 | 51,936 |
| 1983 | | | | | | 31,650 | 31,650 |
| 1984 | | | | | | 38,996 | 38,996 |
| 1985 | $5,511 | $3,364 | | | | 30,804 | 39,679 |
| 1986(b) | 5,157 | 3,379 | | | | 33,849 | 42,385 |
| 1987 | 4,470 | 2,806 | $1,139 | $3,248 | $1,350 | 26,630 | 39,643 |
| 1988 | 6,132 | 2,698 | 2,042 | 3,351 | 1,547 | 24,937 | 40,707 |
| 1989(c) | 3,241 | 684 | 1,774 | 2,092 | 997 | 21,410 | 30,198 |

a. Until 1986, Coal Liquefaction Advanced Research and Surface Coal Gasification Advanced Research were funded under Advanced Research and Technology Development as the Processes subprogram. Part of the Direct Utilization subprogram under AR&TD was transferred to Advanced Research within Control Technology and Coal Preparation, Combustion Systems, and Fuel Cells to comply with FY 1988 Congressional direction.

b. Enacted budget, after 4.3% reduction due to Gramm-Rudman-Hollings deficit reduction legislation.

c. Administration's Budget Request.

Source: Budget Justification Books for the Department of Energy.

## STATEMENT OF DR. NEIL S. BUCKLEW, PRESIDENT, WEST VIRGINIA UNIVERSITY NATIONAL RESEARCH CENTER FOR COAL AND ENERGY

Mr. Chairman, it is a pleasure and an honor to provide the Committee information regarding West Virginia University's National Research Center for Coal and Energy and to bring you up to date on the status of the project that was initiated in FY 1988. Let me begin by expressing my thanks and the appreciation of West Virginia University for the support of the National Center and the FY 1988 funding.

America's fossil fuel resources are key reserves to meet our country's needs for energy. These future requirements call for immediate programs in advanced coal research which can develop new uses for this nation's plentiful energy resource.

Coal and natural gas can be converted into liquid fuels to offset shortages in petroleum. However, the time required to develop and implement fuel conversion technologies during an oil embargo will place America in an unacceptable position with regard to energy supplies.

It is essential for the United States to maintain a viable, long-range program in fossil fuel research in order to retain current expertise and to develop new, competitive technologies which can ensure our energy independence. The Committee realized this critical situation, and last year initiated funding for the National Research Center for Coal and Energy at West Virginia University. I appreciate the Committee's support of this vital undertaking.

The programs of the National Center will have regional and national impacts on our energy industry and overall economy. The National Center will conduct basic and applied research in extraction, utilization, environmental protection, and market enhancement, and will serve as a national clearinghouse for technology assessment regarding the role of fossil fuels in our energy economy. The applied research conducted by the National Center in partnership with industry will make America's energy industries more competitive in the world marketplace.

Within this framework, the following goals have been set for the energy research programs:

a. conduct research and technology assessment programs which will assist the United States in achieving energy independence;

b. support basic research studies of a long term nature which can lead to technological advances in future years;

c. support applied science and engineering studies which can hasten the commercial implementation of technologies required to address current problems;

d. develop close working relationships with industry and government to ensure the success of both short tern and long term research efforts;

e. assist industry in solving problems through cooperative research projects and exchanges of personnel;

f. work closely with regional institutions and industry to develop new employment opportunities in energy and/or manufacturing which will stimulate the economy of the energy producing states;

g. contribute to the solution of problems of national importance such as projected shortages of electric power or improvements in productivity through inexpensive energy supplies; and,

h. serve as a national resource for information on fossil energy.

During the discussions on the FY 1988 funding, West Virginia University committed to begin construction on the Center during this fiscal year. Let me assure you that we will meet that commitment. We are currently preparing for the groundbreaking for the initial construction of the National Center as per instructions from the Conference. First year construction funding of $6 million is providing 24,000 net square feet for multiphase flow/heat transfer, gasification/liquefaction, gas purification/separations, catalysis/surface science, computer labs, and machine shop (basic fuel utilization labs).

Second year construction will provide 13,000 net square feet for robotics, artificial intelligence, and seismic/signal processing labs, technology transfer and technology assessment programs, and administrative offices.

We also committed to substantial cost-sharing in support of this project. West Virginia will provide $20.6 million for construction for the research facilities associated with the new center. Also, $4,5 million for annual operating expenses will assure the effective utilization of the Center. A minimum of an additional $4.5 million in annual operating expenses will be obtained from externally sponsored research.

I thank the Committee for its support of the National Research Center for Coal and Energy at West Virginia University and for the opportunity to testify on its behalf. I appreciate the commitment the Committee has shown for the development of innovative research and technology assessment applied to the increased utilization of fossil fuels.

## STATEMENT OF W. TIMOTHY DOWD, EXECUTIVE DIRECTOR, INTERSTATE OIL COMPACT COMMISSION

Mr. Chairman, members of the subcommittee, it is with renewed hope, and yet a continuing high level of concern for our national economic and energy security, that I appear before this subcommittee to address the oil and gas geoscience and extraction research programs in the FY89 budget for Fossil Energy Research & Development. The Interstate Oil Compact Commission, the organization of the governors of the 29 oil and gas producing states and six associate member states, is dedicated to the conservation of oil and gas.

Last year, in my testimony before this subcommittee, I summarized the findings and recommendations of the Energy Research Advisory Board's report "Geoscience Research for Energy Security" and presented an endorsement of those recommendations by more than 20 distinguished experts and organizations in the energy field. Today, the list of distinguished endorsers has increased to more than 60. Let me take a moment to recap ERAB's findings and recommendations. ERAB looked closely at all DOE programs in the areas of oil and gas geosciences and extraction technology research. ERAB identified no less than 17 programs scattered among 3 assistant secretaries, with no visible point of coordination. Its members found those programs to be "unacceptably small, fragmented, not focused on the highest priority areas,..."

In response, ERAB recommended the creation of a high-level Office of Geoscience Research to manage a refocused, multi-disciplinary research program--derived from an analytically based strategic plan -- that would improve understanding of geosciences and develop new recovery tools. And, to perform this work, ERAB **recommended that our federal programs in oil and gas research be substantially boosted -- by an incremental $50 million over the FY87 level in FY88 and an incremental $100 million by FY90.**

Gentlemen, of the more than 300 billion barrels of known oil that stand to be abandoned in our reservoirs, **at least 90 billion barrels could be added to proved reserves** by improving our understanding of oil and gas geosciences and reservoir heterogeneities -- thus permitting highly targeted infill-drilling -- and by developing advanced extraction processes.

The IOCC recognizes that the majors are not looking toward this kind of research. Rather, in the interest of maintaining shareholder confidence and protecting their short-term bottom lines, the majors have understandably focused their attention on more promising foreign plays. The independents are without the resources to do the research needed. And the states -- who are willing to move forward with research and economic incentives -- have concluded that they cannot do it alone. Rather, they support a strong three-way partnership of the states, the industry, and the federal government, for a coordinated and cooperative research program, the results of which are shared with those in the field who need them most.

I am hopeful because Congress and DOE, each in its own way, appear poised to respond, albeit cautiously, to the ERAB recommendations.

- Senate and House conferees passed a FY88 appropriations bill that slightly increased budgets for existing programs and made specific earmarks for preparation of an analytically-based strategic geoscience research plan.
- An Office of Geoscience Research has been created, reporting to Assistant Secretary for Fossil Energy, with an able deputy director to shape its development. A Hydrocarbon Geoscience Coordinating Committee, led by Assistant Secretary for Fossil Energy J. Allan Wampler, has been established to begin to address problems of organization, focus, and redundancy found by ERAB.
- Mr. Wampler has signed a letter of intent to work with the Geoscience Institute for Oil & Gas Recovery R&D, a consortium of universities in 13 oil and gas states, to help develop an analytically-based strategic research plan to perform basin-specific geosciences and to fund, on a cost-shared basis, some of the research identified by the plan.
- DOE has initiated a Technology Transfer Project to evaluate how research breakthroughs get from the laboratory to the operator -- particularly the independent -- and how the needs of the operators are conveyed to performers of research and included in research plans.
- DOE substantially boosted its FY89 request for Enhanced Oil Recovery, a key component of the oil and gas research program. Mr. Wampler has admitted that DOE asked for an even higher request, but was rejected by OMB.
- **Both bodies of Congress have included language in their FY89 budget resolutions** urging the appropriations committees to substantially increase funding for multi-disciplinary oil and gas related geosciences and extraction research, with a portion of the funds designated for the Geoscience Institute.
- The House Science Space and Technology Committee (HSS&T) has marked up an FY89 authorization bill that recommends a separate and distinct $20 million "Geoscience Initiative", up to $15 million dollars of which would go to the Geoscience Institute.

I have renewed hope because the progress made so far is indeed a good start. But now is the time to focus that progress and make it meaningful. So, I shall comment on the progress made to date and where it is leading us, and offer the IOCC's recommendations for converting this early progress to long-term success in meeting our national energy goals.

The authorization marks set by HSS&T appear at face value to be increases for EOR and Geosciences. However, upon glancing at the bottom line, it is clear that the budget has not been increased as recommended by ERAB and as supported by the states and others. The Advanced Project Technology (APT) program of vital, cross-resource inter-disciplinary research continues to be cut, not strengthened. The $9 million requested by DOE for cooperative ventures in EOR has been reallocated instead to the Geosciences Initiative. This can not be a trade-off: both existing programs and the geoscience initiative require strong funding to meet their critical goals.

**Creation of the Office of Geoscience Research (OGR)** has the potential to be a great leap in the right direction.--With a capable deputy director on board, it now needs two things -- a permanent director with a mandate for effective progress, and a line of direct funding to give it the teeth it needs to fulfill its role. The IOCC endorses the ERAB recommendation for a boost in program funding of $100 million by FY90. We have reviewed the research programs over the past year and have reaffirmed our conviction that the actions recommended by ERAB are both needed and justified.

- Recognizing the budget constraints on Congress, we **recommend a "Geoscience Initiative" of not less than $30 million in FY89**, up to $20 million of which would go to the Institute for cost-shared R&D. Of the remaining funds, not less than $5 million would be available to the Office of Geoscience Research for further development and management of its analytically-based strategic research plan and for special or urgent projects in which the cost-share mechanisms of the Geoscience Institute may not be feasible or appropriate.

- DOE and Congress should give the consortium known as the Geoscience Research Institute strong support. Basin-specific inter-disciplinary research, resulting from an analytically based strategic plan, is essential. But, the consortium concept fulfills only part of the course of action recommended by ERAB and must be complemented and supplemented by expanded and refocused efforts in the existing oil and gas research programs, much of which will be performed by universities and labs.

- **Congress should substantially strengthen existing programs in oil and gas research**, with particular emphasis on the extraction and geoscience related components of the Advanced Process Technology (APT) program, Light and Heavy Enhanced Oil Recovery, and Unconventional gas. Congress should note the increased interest of DOE in these program areas and **fund existing programs in APT, EOR, and Gas at not less than $40 million, and not less than $50 million if tar sands and oil shale are considered.**

- Congress should **encourage DOE to continue its oil and gas Technology Transfer Initiative in FY89 at a level equal of at least $500,000.**

- Finally, Congress should **direct the Hydrocarbon Geoscience Coordinating Committee to prepare an annual Report to Congress** evaluating all oil, gas, and coal geoscience research performed in the department, identifying redundancies and/or gaps in the research, and recommending specific actions and funding levels by which fossil energy research goals can be more efficiently and effectively met.

Mr. Chairman, a strong and effective national program will only be one that emphasizes cooperation -- in research and incentives -- among governments and industry, one that proceeds from an analytically based plan of focused research, one that taps the wealth of geoscientific and technical talent in our universities and public and private labs, and one that tests its success by the measure of improved economics or increase production of American oil. Working together, the states, the federal government, and the domestic producers -- large and small -- can restore the vigor of our local and national economies and add more than 90 billion barrels to our domestic reserves. That's enough to meet our needs for more than 30 years, years we need to develop viable, economic, and safe alternatives. I urge you to consider the energy future of this nation and adopt these recommendations. Thank you.

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## STATEMENT OF THE AMERICAN PETROLEUM INSTITUTE AND THE WESTERN OIL AND GAS ASSOCIATION

The American Petroleum Institute (API) and the Western Oil and Gas Association (WOGA) represent some 200 companies and 4,500 individuals involved in all sectors of the petroleum industry.

We wish to emphasize the opportunity this Congress has to strengthen the nation's energy security. This opportunity, if taken, could encourage the development of secure, domestic energy supplies, reduce the need to import critical oil supplies -- especially from the war-torn Persian Gulf area -- and lessen the outflow of capital to pay for imported oil. It could also bolster domestic employment and income, and add significantly to the mineral revenues the federal government receives.

To take this opportunity, Congress should allow the leasing and development of the potentially vast oil and natural gas resources beneath the federal outer continental shelf (OCS), and reject efforts to impose or renew bans on leasing.

## U.S. Energy Supply Trends

Current U.S. energy supply trends underscore the urgency of finding and producing the oil and natural gas resources believed to underlie those federal lands.

Crude oil prices dropped by almost half in 1986 alone. And prices during 1987 have failed to recover significantly from that dramatic and damaging decline. As a result, domestic production is falling and domestic consumption is rising.

That sharp price decline has had a serious impact on the drilling sector, with rigs in action reaching record lows in 1986. The offshore drilling, service and support industries have been especially hard hit, making it increasingly important for companies to search for oil in the most promising areas, including those federal offshore California and Alaska areas where leasing has been suspended by administrative or congressional action:

- By 1987, domestic crude oil production had fallen 8 percent from its 1985 level. Had it not been for increased production from wells on Alaska's North Slope, that decline would have been significantly greater.
- Average U.S. consumption of petroleum products increased 5 percent over the 1985-87 period. Demand for motor gasoline increased 5.1 percent, distillate fuel (which is primarily home heating oil and diesel fuel) 2.7 percent, residual fuel oil 3.7 percent, and jet fuel 14 percent.
- The difference between domestic production and demand was made up largely by a sharp increase in imported oil. Oil imports accounted for some 37 percent of demand in 1986 -- a level of imports greater than at the time of the 1973-74 Arab oil embargo. The rise continued into 1987 and in November accounted for 42.6 percent of total U.S. demand, surpassing the peak level of imports reached in 1977 -- just before the supply disruptions caused by the Iranian revolution. The average amount of U.S. crude oil and refined product imports in 1987 was 31 percent higher than in 1985. This resulted in an additional demand of over 1.5 million barrels daily on world oil supplies.

The National Petroleum Council estimates that -- if present trends continue -- the United States could have to depend on foreign nations for more than two-thirds of the oil it uses by the year 2000 -- just 12 years from now.

Where must that oil come from, if we fail to develop our domestic petroleum resources? There seems little doubt that most of it must come from the oil-exporting countries of the Persian Gulf region. The nations of that highly volatile area hold more than 65 percent of the non-communist world's proved crude oil reserves. And, with domestic production declining and the United Kingdom's North Sea production expected to begin to decline soon, there are fewer and fewer sources to turn to, other than those of the Persian Gulf nations.

But this scenario could be changed significantly by the decisions this subcommittee makes this year on the moratoria issue.

## Congressional Drilling Bans

The OCS Lands Act Amendments directs that the oil and natural gas resources underlying the federal offshore waters "should be made available for expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs." However, such has not been the case in recent years.

Moratoria have been imposed in each of the past seven fiscal years. At one time or another, they have banned leasing in large areas off New England -- the only moratorium still in effect -- off central and northern California and off the west coast of Florida. We hope Congress will remove the remaining moratorium this year and reject any efforts to impose new leasing bans.

Eliminating such bans will make it possible for state and federal officials to plan carefully and for the Department of the Interior to hold timely lease sales, while protecting particularly sensitive areas. In turn, the petroleum industry will be able -- under the existing strict environmental guidelines -- to explore for oil and gas in the most promising offshore areas.

## Environmental Safeguards

Present state and federal laws and regulations provide a vast array of environmental safeguards to ensure that the interests of the coastal states and of the tourism and commercial fishing industries are adequately protected. There is an ongoing system of consultation and reconciliation to settle differences of opinion. The coastal states have many opportunities to influence federal decisions on the timing, size and scope of the offshore leasing program. No geophysical boat could operate, no drilling rig go into action, and no platform produce a drop of oil or cubic foot of natural gas without state and local approval and full compliance with all applicable laws and regulations.

Strict measures are in force to protect the quality of the marine waters, to safeguard the sea otters and other marine animals, and to improve air quality. Moreover, a record has been established that clearly demonstrates that these measures are complied with so that the environment is thoroughly protected during both exploration and production operations.

In 1985, for example, wells in the federal offshore domain produced some 389 million barrels of oil and 4 trillion cubic feet of natural gas. According to the Interior Department's Minerals Management Service, 957 barrels of that oil were spilled. That comes to about two ten-thousandths of 1 percent of the oil produced from those wells that entire year. As a point of comparison, natural oil seeps in the Santa Barbara Channel off California are estimated to add some 150,000 barrels of oil to the marine environment annually.

Certainly, it is important that the offshore leasing program is conducted in a way that takes into account the environmental concerns of all citizens, and of the coastal states in particular. At the same time, it is also important to remember that the petroleum resources underlying federal waters belong to all Americans. They are not the exclusive possessions of the adjoining coastal states, and the development of those resources should not be controlled by any single state or small group of states.

## Time Factor

Time is a critical factor in moving this nation toward a more secure energy future. The search for oil that begins today cannot result in instant production. Years are needed to lease, explore and develop an offshore petroleum reservoir. It takes at least two years under the present system just to schedule and conduct a federal offshore lease sale. Then, it often takes several years to find a new offshore field. On average, it requires eight to 11 years after a lease is issued to discover and then develop a new field, install the production equipment and bring the field into operation. In remote frontier areas -- such as offshore Alaska and the deeper waters off the lower-48 states -- the elapsed time from lease issuance to production may run closer to 15 years.

Therefore, the United States needs to press ahead with offshore exploration to ensure that dependable supplies will be available in the late 1990s and beyond. The nation cannot wait for another energy supply disruption -- such as resulted from the Arab oil embargo and the Iranian revolution in the 1970s -- before taking appropriate action. To do so would mortgage our future energy security to the oil-producing nations of the strife-torn Middle East.

## Benefits of a Sound Offshore Leasing Program

In the more than three decades since the federal offshore leasing program began, only 3 percent of the total 1.4 billion acres within the Bureau of Land Management's offshore planning areas has been leased. Yet the nation has benefitted enormously from the resources obtained from the small portion of the federal offshore domain that has been leased.

Between 1954 and the end of 1987, nearly 8 billion barrels of oil and more than 79 trillion cubic feet of natural gas were produced from wells in the federal offshore domain. Over the past 34 years, the federal government received more than $86 billion in lease bonuses, rentals and royalties from those operations -- making the offshore program second only to the income tax as the largest source of federal income.

Development of offshore oil and natural gas reserves could provide long-term energy security for America. The U.S. Department of the Interior has pointed out that offshore wells in federal waters each day produce one and one-half times the amount of oil this nation could hope to withdraw -- on a daily basis -- from the Strategic Petroleum Reserve.

The benefits of opening all federal offshore lands to oil and natural gas exploration and production, however, extend far beyond revenues to the government and a more secure petroleum supply for the nation. Studies by Data Resources, Inc., and the American Petroleum Institute have analyzed the contribution of OCS energy-related activities to the U.S. economy. Both studies found that, in 1981, those OCS activities directly and indirectly generated more than 700,000 jobs, $25 billion in expenditures and nearly 1 percent of this country's total economic output. In addition, the Data Resources, Inc., study found positive economic effects in all states except Vermont.

The API study concluded that such a ban would negatively affect a wide variety of U.S. industries. These include industries traditionally associated with oil and natural gas development and other industries, such as wholesale and retail trade, banking, insurance and advertising. Further, the study found that the negative effects of such a ban would be felt in virtually all 50 states. Particularly affected would be inland states, which supply a large portion of the industrial goods that directly and indirectly support offshore petroleum operations. Five of these states -- Illinois, Indiana, Michigan, Ohio and Pennsylvania -- stand to lose as many as 35,000 jobs associated with OCS activities.

Thus, just as the resources underlying federal offshore areas belong to all of the people, all of the people will benefit from their timely development ... including the citizens of the coastal states.

## Summary

In summary, bans on exploration for and development of those offshore resources are both counterproductive and unnecessary. They are counterproductive in that they constrain domestic energy production at a time when the government should be acting to discourage increased reliance on foreign oil and to encourage the development of secure domestic energy supplies. They are unnecessary because of the advancement and application of exploration and production technology, which -- under existing strict federal and state laws and regulations -- assure that the environment will be protected.

This is not a matter that concerns only one state or only one group of states. The development of offshore energy resources is vital to the future of all Americans, wherever they may live.

Thank you for the opportunity to comment on the need for offshore oil and gas exploration and development.

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## STATEMENT OF THE AMERICAN PETROLEUM INSTITUTE

The American Petroleum Institute (API) appreciates this opportunity to provide the Subcommittee with its views on the "Buy/Build America" amendment regarding exploration drilling rigs, drillships, platforms, vessels and other structures used in oil and natural gas exploration and production on the federal outer continental shelf (OCS). API is a trade association representing some 200 companies and 4,500 individuals engaged in all aspects of the petroleum industry including exploration, production, transportation, refining and marketing. Many of API's members are actively engaged in offshore oil and gas operations. Therefore, API and its members have a direct and substantial interest in any legislation which would impose a domestic construction/content requirement for offshore structures.

Last year, a "Buy/Build America" amendment was attached to the Department of Interior Appropriations bill but was deleted in conference. That amendment would have required that any drilling rig, drillship, production platform, vessel or other structure used to explore for or produce oil and gas on the OCS -- other than offshore Alaska -- be built in the United States with at least 50 percent of the total fabrication hours expended in the United States and with articles, materials or supplies at least 50 percent of which -- by cost -- were mined, produced or manufactured in the United States.

API strongly opposes such an amendment. It would increase offshore exploration and production costs, inhibit offshore exploration and production activity and result in a net reduction in domestic employment. Reduced OCS development increases U.S. reliance on oil from foreign sources, some of which are unstable. Such an amendment also will impede federal deficit reduction efforts by reducing U.S. government receipts from OCS lease bonus revenues, rentals and royalty payments.

Finally, the amendment is contrary to international trade agreements to which the U.S. is a signatory, such as the General Agreement on Tariffs and Trade (GATT). This is one of the reasons both the Department of State and the U.S. Trade Representative have strongly opposed such an amendment.

The amendment is sought to benefit domestic steel producers, steel fabricators and shipyards. Steel producers supply the raw materials, fabricators build steel jackets and piles for offshore platforms, and shipyards construct offshore drilling rigs. In our view, the "Buy/Build America" amendment will afford scant benefit for these sectors of the economy at substantial cost to the petroleum industry and the nation as a whole.

A few years ago, steel import quotas were imposed to give the U.S. steel industry time to restructure under the pressure of world competition. These quotas have worked. Domestic steel production is now near capacity, prices have risen, and higher steel industry profits have been reported. Indeed, steel fabricators are increasingly petitioning the Department of Commerce for exemptions to the steel import quotas because domestic steel producers cannot meet fabricators' needs. Recent price increases of U.S. steel reflect the tighter domestic steel supply situation. Also, the cost of imported steel has risen and improved the competitiveness of domestic steel. Further protection is not needed, especially at the expense of reduced U.S. security and increased dependence on imported oil.

The petroleum industry, however, remains in a deep recession. Prices have fallen to about $16.00 per barrel. U.S. crude oil is costly to produce and the fall in prices has resulted in lower levels of domestic exploration. Domestic production, too, is down -- 8 percent in 1987 from 1985. Imports are rising -- now 40 percent of daily U.S crude oil needs -- and are exceeding the dangerous levels of the late 1970s. The Department of Energy and the National Petroleum Council estimate that, if the trend continues, U.S dependence on foreign crude oil supplies could reach 60 percent by the mid-1990s. We must proceed now with efforts to find new supplies of oil and gas especially from the federal OCS. In our view, the "Buy/Build America" amendment would discourage such efforts.

Given the sluggish state of the petroleum industry, expected oil market conditions and numerous restrictions imposed on federal OCS leasing, it seems unlikely that -- in the next five years -- more than five new platforms would be needed for the California OCS, five new platforms for deepwater (greater than 1,300 feet) Gulf of Mexico and 400 new shallow water platforms for the rest of the federal Gulf of Mexico OCS.

There are three major components in an offshore platform: the topside modules housing the operating equipment (pumps, compressors, computers, crew quarters, etc), the supporting steel jacket structure, and the piles driven into the seabed to secure the jacket. While portions of the structure may be obtained abroad, on a total cost basis, most of these structures used in up to 1,300 ft. of water are obtained from domestic sources. The ongoing service and maintenance required through a project's life for topside equipment and components have consistently made domestic producers preferable for this costly, complex equipment.

The OCS structures we expect to be installed during the next five years would contain a total of about 1,175,000 tons of steel -- about 235,000 tons of steel annually. U.S. raw steel production in 1987 was 88,471,000 short tons. Based on this total, the amount of steel needed for all OCS platform construction represents less than 3/10ths of 1 percent of annual steel production. Since most shallow water structures in the Gulf of Mexico are produced domestically, the burden of a "Buy/Build America" amendment will fall most heavily on those few facilities projected for installation in deep Gulf waters and offshore California. These projects represent only 1/20 of 1 percent of total annual U.S. steel production. This marginal benefit to the steel industry contrasts sharply with the costs and inefficiencies associated with a "Buy/Build America" requirement.

Generally, there are three types of OCS oil and gas activities that would be affected adversely by the amendment.

First, a "Buy/Build America" amendment would increase the costs of deepwater exploration drilling. The large drilling rigs and drillships capable of operating in the active deepwater areas of the Gulf of Mexico are manufactured overseas for domestic drilling companies because of significantly higher U.S. fabrication costs. Domestic oil companies must have access to drillships or large rigs to meet the requirements of deepwater exploration drilling and to avoid delay in the development of OCS resources. Under the amendment, U.S. fabricated rigs no longer would have to compete in the future with rigs manufactured overseas. Limited competition and increased construction costs, likely will increase the contractual rates for these larger rigs and discourage OCS leasing and exploration, especially in frontier areas where large new discoveries may be made.

Second, once discoveries are made in deep water, producers must find the lowest cost and most technologically advanced suppliers of production platforms and equipment to justify economically the development of new oil and gas discoveries. This is especially critical to the successful use of new technologies, such as tension leg platforms and compliant tower systems for production of deepwater discoveries.

Clearly, as deepwater Gulf of Mexico development begins to evolve, Gulf coast fabricators will continue to produce elements of deepwater structures on an economically competitive basis. U.S. producers likely will remain the source of topside equipment and components. For example, Conoco is employing a tension leg well platform (TLWP) utilizing a floating platform and hull assembly in a deepwater project offshore Louisiana similar to a semisubmersible drilling rig. The total project cost will be in excess of $400 million. Certain components are being produced abroad, but 70 percent of project expenditures are being made in the U.S. to domestic contractors and vendors.

Other technologies, such as compliant towers piled to the seabed, likely will be used in deep Gulf waters. Here, too, Gulf coast fabricators can be competitively situated to provide compliant tower components which cannot easily or economically be transported from outside the Gulf. However, current U.S maritime law does not allow the use of large foreign built barges to move the components from U.S. ports to sites on the OCS. So, some of these projects may not be undertaken or may not be built in U.S. yards.

Finally, the effects of a "Buy/Build America" amendment on West Coast OCS oil and gas operations would be especially severe. Presently, all offshore fabrication yards in California are closed due to the depressed state of the petroleum industry and the slow pace of leasing on the West Coast. The time, cost and difficulty in obtaining state and local permits to establish an offshore fabrication yard for what would be a very limited market -- perhaps 5 production platforms in the next 5 years -- are substantial and potentially prohibitive. Should such a fabrication capability nevertheless be established, a "Buy/Build America" requirement would ensure cost increases attendant with monopolistic environments, since platforms for the West Coast -- as a practical matter -- can be built only there or at a Pacific rim location and transported to West Coast locations.

Many of the effects of a "Buy/Build America" amendment will be felt in frontier areas -- the California OCS and deepwater Gulf of Mexico, where prospects are good for major discoveries that will help the U.S resist even greater dependence on foreign sources. However, additional costs imposed by the "Buy/Build America" amendment, at worst, could be fatal to some promising projects. At best, the amendment will raise costs, reduce profitability and diminish the capital available for reinvestment in the additional exploration and production activities we believe must be undertaken to supply U.S needs 10 or more years in the future.

In addition to impacts on the petroleum industry, such as losses of current and future domestic petroleum production, domestic supplier industries -- producers of topside equipment -- would be affected adversely by the reduction in activity caused by a domestic buy/build requirement. Some jobs might be maintained in the steel and fabrication industries, but the net effect of the amendment could be a loss of between 16,000 and 25,000 jobs in the United States in the year of peak effect. More jobs may be lost if foreign governments retaliate and impose their own national purchase requirements. The U.S. is currently a net exporter of drilling services and this could be reversed.

## Summary

Passage of the "Buy/Build America" legislation would reduce federal revenues and increase costs. It could chill future leasing, cast a shadow on development projects and reduce income from lease bonus revenues, rentals and royalty payments from OCS oil and gas production. At an oil price of $15 per barrel, the potential bonus revenue loss to the federal government over the next 15 years could be $1.1 billion, while annual royalty payments could be cut by $133 million. In the context of large federal budget deficits, the government cannot afford to lose so much revenue.

Rising U.S. oil imports also are making it more difficult for the United States to get the foreign trade deficit under control.

As a result of the sharp drop in oil prices since early 1986, there has been an increase in oil consumption, a dramatic cutback in domestic exploration and falling oil production, making the nation increasingly dependent on foreign oil. In 1987, imports of oil cost the United States some $40 billion. This resulted in oil -- the second largest U.S. import item after motor vehicles -- accounting for about 8 percent of the nation's total import bill. This is more than one-quarter of the estimated $150 billion trade deficit in merchandise for 1987.

The potential negative economic consequences of a "Buy/Build America" amendment far outweigh any apparent benefits. The amendment would violate existing international trade rules, hurt the petroleum industry, and could prove detrimental to the steel and fabrication industries whose interests it is intended to benefit. Clearly, the "Buy/Build America" amendment will not, on balance, benefit the nation's overall economic well-being or energy security.

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## STATEMENT OF SOUTHERN COMPANY SERVICES, INC.

### Summary

The purpose of this submittal is to request funding of $8 million for FY'89 in the Department of Energy's Fossil Energy Budget for the continued operation of the Wilsonville Advanced Coal Liquefaction Research and Development Facility. The continuation of this project is of vital importance to the energy security of the United States because we continue to be vulnerable to another oil crisis through either high prices or shortages. Direct coal liquefaction can cap the price the United States pays for imported oil and can also help reduce the trade deficit. The coal liquefaction research program at Wilsonville has resulted in significant improvements in the economics of coal-derived liquids - for example, a 60 percent decrease in cost between 1983 and the present. However, more work needs to be completed before coal-derived liquids can economically compete with petroleum. The objective of the Wilsonville research program is to reduce the cost of coal-derived liquids from the present cost of $35 per barrel to $28 per barrel, an oil price that could be reached in the next five years even without a crisis. Over the next two years, the Wilsonville project plans to focus its research on obtaining higher yields from bituminous coals, on testing less expensive coals, and on improving catalysts and process configurations. If this can be accomplished, it may be possible to have this technology ready before another oil crisis occurs. If the Wilsonville program is terminated, the government will have to spend $30 to $50 million during the next oil crisis to build and operate a similar facility. More important, it will take at least five years to re-learn the operating and maintenance techniques that are presently well understood at Wilsonville.

### Introduction

Due to declining domestic petroleum reserves and production, increased domestic oil consumption, and increased dependence on imported oil, the United States is very vulnerable to another oil crisis. Presently, oil is the major source of transportation sector fuels and there are no available near-term alternatives. With continued research, direct coal liquefaction can potentially provide an alternative fuel source in as little as 5 to 10 years. Recent developments have shown that as much as 78 percent of low-ash, high-carbon eastern bituminous coals can be converted into distillate fuels. In addition, revised estimates of the economics of direct coal liquefaction technologies show that the cost of producing coal-derived liquids has been reduced from $93 per barrel in 1983 to $35 per barrel in 1987 through improvements in technology and plant design. If commercialized, coal-derived liquid fuels can reduce U.S. dependence on imported oil and can also reduce the U.S. balance of payments deficit.

Wilsonville is the largest operating coal liquefaction pilot plant in the United States but it is also the smallest size at which steady-state evaluations of advanced coal liquefaction technology can be conducted. The facility, which was built without federal funds, cost over $25 million to construct. In addition, an important resource at Wilsonville is a staff of 100 experienced engineers, chemists, operators, and maintenance personnel with an average of over 10 years experience in coal liquefaction research. Wilsonville has the reputation of being one of the best coal liquefaction research projects in the world. Japan, the United Kingdom, Canada, Australia, and the People's Republic of China all continue to support development of direct coal liquefaction as a method of reducing dependence on imported oil. If the Wilsonville program is terminated, the United States will lose its leadership in this technology which it needs in order to be ready for the next oil crisis.

Wilsonville Accomplishments

Some significant recent accomplishments of the Wilsonville facility are:

- From 1982 to 1985, integrated two-stage liquefaction (ITSL) was developed and demonstrated at steady-state conditions. Using an integrated system of a thermal reactor for the first stage and an ebullated-bed catalytic reactor as the second stage, 60 percent of typical eastern bituminous coal was converted to distillate fuel. This was a significant increase over previous systems, which typically converted 50 percent or less into distillate fuel. It was this breakthrough which caused Amoco to re-evaluate its cost estimate for coal derived liquids.

- In 1984, over 50 percent distillate was produced from low-rank western subbituminous coal by using an inexpensive disposable catalyst in the ITSL process.

- In 1985, the objective of the Wilsonville program was changed to emphasize research into fuels that can be used in the transportation sector rather than clean boiler fuels as in the early 1980's.

- In 1986, a mathematical model was completed which simulates the Wilsonville ITSL process.

- In 1987, staff was reduced by 15 percent and operating cost were reduced by 7 percent due to reduced funding. The quality of the research program was only minimally affected. The project is currently at minimum staffing for an effective research program.

- In 1987, a second ebullated-bed catalytic reactor was added and research into close-coupled two-stage liquefaction began. In late 1987 and early 1988, 78 percent distillate yield was produced from low-ash, high-carbon Appalachian coal.

Wilsonville Goals

The goal of continued coal liquefaction research at Wilsonville over the next two years is to reduce the cost of coal-derived liquids from the current $35 per barrel by another 20 percent to $28 per barrel. It is not unreasonable to expect oil prices to reach $28 per barrel in the next five years under non-crisis conditions. If coal-derived fuels can be produced for $28 per barrel, there is a reasonable possibility of commercializing direct liquefaction before the next oil crisis occurs. If coal liquefaction can be commercialized under non-crisis conditions, the price the United States has to pay for imported oil will be effectively capped. Commercialization can also help reduce the trade deficit by replacing imported oil with fuels produced from the domestic coal reserves. Research over the next two years will focus on:

- low-ash, high-carbon eastern bituminous coals which may increase the quantity of distillate yields.

- low-quality Southeastern lignites which may lower the operating cost (lower coal cost) of coal liquefaction plants.
- improved catalysts which may lower capital and operating cost, increase distillate yields, and improve product quality.
- improved process configurations which may lower capital and operating costs.

Wilsonville Capabilities and Private Sector Cost Sharing

The Wilsonville pilot plant has several unique features that make it well suited for continued coal liquefaction research. These include:

- A staff of 100 experienced engineers, chemists, operators, and maintenance personnel with an average of over 10 years experience in synthetic fuel research.
- Proven capital equipment valued at over $25 million that was purchased with funds from non-government sources [Electric Power Research Institute (EPRI), Southern Company Services (SCS), and Kerr-McGee Corporation]. The Wilsonville pilot plant includes two ebullated-bed catalytic reactors, an efficient Kerr-McGee Critical Solvent Deashing unit for ash removal, and all necessary support equipment such as waste water treatment and data acquisition systems.
- A non-proprietary research program that is designed to disseminate as much information as possible to industry.

Cost sharing for the Wilsonville project is provided by EPRI, Amoco Corporation, and SCS. Through 1987, almost 40 percent of the total project cost of $113.3 million has been provided by the above mentioned co-sponsors. All capital costs are paid by EPRI. In 1988 and 1989, we estimate that a minimum of $750,000 per year will be provided by co-sponsors. SCS is actively seeking additional private sector co-sponsors. In addition to cost sharing, SCS will implement changes in the project organization that will save $600,000 to $700,000 per year beginning FY'89.

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## STATEMENT OF MICHAEL HANEY, NATIONAL URBAN FOREST COUNCIL

I am Michael Haney representing the National Urban Forest Council. I am a private citizen who has donated a considerable amount of my time to the urban forest in my community of Tacoma Park, Maryland. We work hard locally to keep the trees healthy, but on occasion, we, like thousands of other communities across the country, need information and technical assistance to maintain our public resource. For this reason, the National Urban Forest Council is requesting your continued support of urban forestry technical assistance and research in the USDA Forest Service budget. We recommend an increase from $2 million to $5 million for technical assistance in State and Private Forestry, and an increase in research funding from $1 million to $1.5 million.

The National Urban Forest Council is a national network of citizens and urban forestry professionals active in urban forestry. The Council was founded under the auspices of the American Forestry Association, and distributes a national newsletter to 9,500 members and urban forestry enthusiasts. The urban forest is a $50 billion asset that covers 95 million acres, and is increasing in size each year. It is the forest outside the windows of 80% of Americans.

The National Urban Forest Council recognizes today's difficult budget constraints, but sees a greater need to improve conditions of this public resource called the urban forest. The federal effort that has been approved by this committee for ten years has been successful, but needs to be strengthened so that services can reach a larger audience.

A recent study of the condition of the trees in 20 cities shows they are in a dangerous state of decline that has persisted for over ten years (see enclosed article "THE STATE OF OUR CITY FORESTS"). This decline of the urban forest will continue until funding levels are adequate. In a third of those cities, eight (8) trees die for every tree planted, and the average life expectancy of a tree is

32 years. Smaller communities are too small to start their own management programs and large communities start programs too late to ever catch up with the maintenance needs.

Although the decline is widespread, some communities have reversed this trend and offer good examples for others to follow. The technical assistance supplied through the US Forest Service reached 4,633 communities last year alone. This assistance helped communities recognize the needs of their trees, helped them start management programs, helped improve the effectiveness of existing programs, and helped the information exchange among communities so that solutions would not have to be rediscovered. Assistance from this program has guided citizens from hundreds of towns through surveys of their trees, and creating management plans to guide them in the future.

Much of the technology needed to improve the health of the urban forest is available. One northern city reports that the average life span of their trees has been increased to 60 years - that's twice the national average. Another city has essentially stopped the most deadly tree disease to ever hit trees of the urban forest, Dutch elm disease. Other cities can benefit from their experience. A study in Milwaukee showed that trimming trees when they were young, reduced overall costs dramatically. Trees grew straighter, taller, and required less care as they grew older.

A quarter of a million people in the states of Minnesota and North Dakota benefitted from a cooperative program that removed elms along the Red River. This area, outside of everyone's city limits, was within everyone's local concern. The United States Forest Service, the Minnesota Department of Natural Resources and the North Dakota Department of Natural Resources combined forces to demonstrate proper utilization of an urban forest resource. This project not only helped manage Dutch elm disease, but also stimulated the local economy and reduced local flooding hazards.

We have the knowledge, ability and community spirit to stop the decline of the urban forest and to start to rebuild its structure. I have included two articles on improving the health of the urban forest produced by the American Forestry Association. They show that we can stop the decline of the urban forest by improving our scientific knowledge and promoting action oriented programs. But, we need the help of this Committee in supplying the funding needed to succeed in this endeavor.

An assessment of the urban forest by the National Association of State Foresters was unveiled February 17, 1988. It helps identify some of the needs of the urban forest. One of the major needs is a focal point in each state to supply technical urban forestry assistance. After reviewing the accomplishments of the states for the last nine years, the Council finds the majority of activity in states that have a full-time urban forestry coordinator, and only a fraction of those accomplishments where the coordinator was part-time or did not exist. Only nine (9) states have a full-time person in this capacity. We feel this number should be increased to at least thirty (30). We estimate the cost of the increase to be $1.5 million.

In addition we feel another $1.5 million is needed for special projects and to create a computerized information system that can be accessed by any community needing information. The technical assistance supplied by the foresters is generating local action and guiding people in the right direction. It is the kind of assistance that allows private citizens, like myself, to obtain needed information, avoid common pitfalls, and in the end, maintain the health and value of the urban forest.

The values and benefits produced by the urban forest are more then meets the eye. The trees, shrubs, and green spaces of a community affect the physical environment by moderating climatic extremes (which results in energy cost savings), reducing air pollution, screening unpleasant views, and reducing noise. They are important for storm water management, erosion control, wildlife, and recreation. Research currently underway is also recognizing significant social and psychological values. Under carefully controlled conditions, research shows hospital patients are recovering faster when they have views of trees. I have enclose a copy of an article in SCIENCE magazine by Roger Ulrich which highlights results of this research.

We feel it is important that the federal government maintain an interest in urban forestry. The existing funding supplies essential "outside" support in the form of technical assistance and research to thousands of communities. The funding plays an essential role in connecting local, state, and national efforts, so that information and talent can be shared as effectively as possible. This modest federal effort plays an important role in maintaining the condition of a very valuable resource.

The national urban forestry movement requires research efforts as well as technical assistance. The research has been cut drastically in the last few years, and some changes are needed. We feel the research effort by the Forest Service should be increased to $1.5 million. This would allow existing projects to be funded at a minimum level, and allow research on the Wildland/Urban Interface to continue. The existing programs should be funded at about $1.1 million and the Wildland/Urban Interface at $400,000.

The production of effective research in urban forestry would be further improved if one of the research locations served as a focal point. We feel this focus should be at the station in Chicago, as it has produced the most research over the last few years. Current research efforts include assisting the Cook County Forest Preserve District in the management of their forest resources including recreational bicycle trails, and, more recently, by providing guidelines for reforestation of the urban parks and street corridors. Funding continues to be needed for urban forestry work on "urban island ecology" work in Syracuse, New York, and the valuation of wildlands at Fort Collins, Colorado.

The urban forestry technical assistance programs, through State and Private Forestry, have supplied timely and valuable information to thousands of communities. This program is supplying the support communities need to improve, build, and maintain the condition of their urban trees. The administration's proposal to cut these programs will severely damage the flow of this vital information, and greatly reduce the effectiveness of community programs -- programs that have provided an important link between professional groups, as well as generating volunteer efforts by citizens such as myself.

A project in Chicago - Neighborwoods - has helped over thirty (30) community groups with tree planting and related projects in less than one year. This Christmas, over 10,000 Christmas trees were recycled. Neighborwoods was started as a cooperative project between the Open Lands Project, the Illinois Department of Conservation, and the United States Forest Service. This project has ignited both citizen and business support and has raised the level of "tree awareness" throughout the City. The catalyst-like effect of Neighborwoods is evidenced in the awarding of Chicago Park District funds to Neighborwoods that will initiate tree planting programs in the City parks and promote citizen participation through educational activities.

The appropriations for Urban and Community Forestry Programs, although small in terms of dollars, have proven to be a wise investment. No other assistance is available to communities. The small town of Wallace, Nebraska, population 350, raised $7,000 in response to a matching grant fund initiated by a local foundation. Technical assistance for the development of this program is being provided by the state urban forestry coordinator. Local foundation and business monies are available, but need to be tapped. The state urban forestry coordinator can do this, while coordinating effective programs and stimulating additional local funding.

The National Urban Forest Council recommends funding levels of $5.0 million for the Urban Forestry State and Private Forestry line item and $1.5 million for urban forestry research. (Urban forest research is part of the Forest Service's Resource Analysis budget and is not a separate line item).

Furthermore, the Council recognizes the importance of other line items in the State and Private Forestry budget. More than half of the forest land in the country is owned by private individuals, and about 80 percent of these people live in urban areas. We feel the Administration's proposal to continue reducing Forest Management and Utilization funding, which includes the Urban Forestry Line item, unacceptable. We appreciate the support this committee has shown in past years and ask you, once again, to support these efforts. They have been low cost, effective, and important to the quality of American lives.

Thank you for this opportunity to submit this statement for the record.

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## STATEMENT OF JOHN STALEY, SUPERINTENDENT OF FORESTRY, GRAND FORKS PARK DISTRICT

As Superintendent of Forestry for the Grand Forks Park District I am concerned about the proposed appropriations for the urban forestry line item in the USDA Forest Service 1989 budget. I believe it is essential to maintain funding levels at five (5) million dollars in order to continue the progress that has already been made in this important program.

Urban forestry is a relatively new service that has begun to provide outstanding benefits to our nations communities. Urban forestry encompasses private business and municipal services that together use professional training to plant and nurture trees growing in communities. Where urban forestry is active, community tree populations tent to multiply in number. Tree planting takes place on private property as well as public property.

Since the inception of using professional tree management in urban areas began in a big way some thirty years ago, many benefits have been realized.

One of the most impressive is the manner in which citizens develop a sense of neighborhood or community in locations where public tree planting takes place. Tree lined streets improve the attitude of neighborhood residents toward their environment. Social scientists have observed some rather interesting psychological effects trees have on people.
The USDA Forest Service Urban Forestry funding has proven to stimulate compounded benefits. The federal money has acted as seed money that serves to stimulate local funds to pay for urban forestry services, thereby spawning an industry that provides jobs. Citizens who witness a tree planting project in their community react by hiring local nursery businesses to improve their own properties.

Of the five (5) million we are requesting, 1.5 is to fund a program of "focus" projects. An example of a focus project is one that is currently taking place in our region, the Red River Valley. The apparent success of the USDA Forestry Service project known as the Red River Forestry Project, has been conducted since 1986. The North Dakota Forestry Service in cooperation with the State of Minnesota Forest Service has used federal "focus" funds to aid land owners along the Red River Valley with wild elm harvesting projects. The foresters assist the land owners with inventory and management so that land owners can develop contracts with private logging companies who harvest the elm for wood products.

The service the foresters provide also includes developing plans for reforestation of the wooded acreage. Through this project land owners are able to realize an income from what is to be otherwise a lost resource (Dutch elm disease is currently killing elms throughout the region).

Other benefits include the obvious fact that the logging industry is being stimulated. Also, the Dutch elm disease control efforts of the cities in the region are assisted by the removal of the elms.

With this new and expanding industry that is improving the quality of life in our communities comes the need for research. Trees are not naturally suited for the harsh urban environment. Healthy trees produce benefits with minimal maintenance. One the major areas of tree research is the hybridization and development of tree species that adapted to the urban environment. Already scientists have been able to find strains of trees that grow better in urban areas.

Much work in this field is yet needed. In our state we have developed an innovative governmental cooperative program targeted to improve tree species adaptability. Local governments are joining in cooperation with a state university to develop new tree species for urban planting needs. The federal dollars of past years have stimulated these types of self help programs.

The work is not over. The proposed five million will further stimulate a creative and important movement in our society. Improved community living environments will lend to a better quality of life while providing greater job opportunities.

Thank you for considering my letter.

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## STATEMENT OF THE SOCIETY OF AMERICAN FORESTERS

Mr. Chairman and members of the Subcommittee, my name is John C. Barber. I am the acting executive vice-president for the Society of American Foresters (SAF). SAF's 19,500 members represent all segments of the forestry profession including public and private practitioners, researchers, administrators, educators, and forestry students.

The Society wishes to thank you and the members of the subcommittee for your support of forestry and your efforts to maintain a balanced, multiple-use program for the USDA Forest Service. We appear before you to again express our concern over the Administration's proposed FY 1989 budget. Our testimony today, Mr. Chairman, centers around comparisons between the Administration's proposed 1989 Budget and the 1989 Forest and Rangeland Renewable Resources Planning Act (RPA) high-bound budget levels. The RPA high-bound levels reflect the demand and supply needs identified in the 1979 assessment and 1984 supplement. Although it is clear that the results of three cycles of RPA planning are at best mixed, the Society continues to believe the program is a valuable one. Please note that throughout our statement and in the attached figures the Society has adjusted all budget levels to 1989 constant dollars. This includes yearly budget requests, actual budgets, and RPA high-bound figures [1].

Though the Administration's request for the Forest Service's various program areas are an improvement over past years, they are still low given the needs that are identified in the 1985 RPA. This is especially true with regard to long-term investments and noncommodity programs. We support Congressional efforts to streamline and reduce government spending and make federal programs more economically efficient; however, we also believe that forestry and natural resource programs should be funded at levels that are commensurate with the national importance they were given through the extensive environmental legislation in the 1970's. For this reason, the Society believes that the total Forest Service budget should be at least $2.6 billion. This will allow the Forest Service to restore funding to program areas where cuts have been made and to continue 1988 programs in 1989. The Society believes that any selected increases should go toward a balance among multiple uses.

The following outlines our more detailed concerns about key program areas.

## Program Area Funding

### National Forest System

The Administration's FY 1989 National Forest System (NFS) request of $1.16 billion is 2.3 percent less than the FY 1988 budget and 28.8 percent less than the RPA high-bound. Figure 1 (attached) gives a historical comparison between the RPA high-bound, the Administration's request, and the actual budget in constant 1989 dollars. To get a more accurate picture of priorities, however, the NFS budget must be broken down into its program components. For example:

### Timber and Roads Program

Demand for timber is projected to remain strong. The Society favors a timber sale program that provides for current demand without reducing the long-term sustained yield capacity of the land and that would retain the multiple-use characteristics of the national forests.

The Administration proposes to increase timber and road construction program [2] funding by 4.5 percent over the 1988 budget. This level, however, is 33 percent less than the 1989 RPA high-bound. See Figure 2 (attached) for a historical perspective on timber and road funding.

In comparison to 1988 base level, the proposed timber sale program of 11.2 BBF will receive a 7 percent funding increase while the timber harvest administration program of 12.2 BBF will receive a 41 percent funding increase. The road construction program is slated to increase by 12.8 percent from last year's budget level. These increases are disproportionally higher than the reforestation budget level, which, including K-V and reforestation trust funds, is slated to increase by only .8 percent. This dichotomy is particularly troublesome, given the Forest Service's 1.2 million acre reforestation backlog, due primarily to large salvage sales operations that are needed following last year's devastating fires.

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[1] These budget levels were inflated using the most recent GNP-Implicit Price Deflator figures from OMB.

[2] This program includes the following budget line items: Timber sale administration & management, Reforestation & TSI (KV excluded), Brush disposal, 90% of forest road construction, Total purchaser credits, Timber salvage sales, and 86% of the Tongass Fund.

The Society recommends funding for a programmed sale and harvest level between last year's originally planned sale level and the RPA high-bound level of 11.5 BBF. Furthermore, the Society encourages Congress to appropriate reforestation, timber stand improvement, and road construction budgets that are proportionate to those programmed sale and harvest levels.

## Recreation and Wilderness

The Forest Service's outdoor recreation program, measured in recreation visitor days, is the largest in the United States. The Agency's portion of the National Wilderness Preservation System, which provides spiritual enjoyment, scientific study, and primitive recreation, is unequaled throughout the world. At requested budget levels, the Agency can only provide for proper management of 57 percent of recreation capacity. In reality, National Forest Lands will most likely be used at their capacity regardless of whether the Agency's budget will allow them to be managed accordingly.

The Administration's proposed request of $170 million for recreation and wilderness is 7.4 percent below the 1988 budget level and 23 percent below the RPA high-bound 3/. Figure 3 (attached) gives a historical perspective of Recreation and Wilderness program funding.

The Society is encouraged by steady funding increases by the Congress for recreation and wilderness programs over the last few years. We believe this upward trend should continue given:

- the need to implement a new recreation initiative that is designed to strengthen and balance the multiple-use management of the national forests and implement the recreation levels found in land-management plans;
- the need to develop a more proactive wilderness management program;
- the outlook for demand for outdoor recreation that, given current levels of investment in facilities and management programs, will cause more overcrowding and continued decline in the quality of experience.
- An estimated $300 million backlog in recreation construction, reconstruction, and maintenance needs.

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3/ This program includes the following budget line items: recreation use, forest trail maintenance, recreation construction, and forest trail construction.

## STATEMENT OF JAMES URBAN, LANDSCAPE ARCHITECT

I am a landscape architect in a private practice and a member of the American Society of Landscape Architects and the American Forestry Association. I am submitting this statement in support of the urban forestry line item in the U.S.D.A. Forest Service 1988 Budget, and request that you maintain funding levels at $3.0 million for this important project.

The continuation of a healthy urban forest with its daily benefit to the millions of Americans who reside in our urban areas is one of the great legacies each generation leaves to the next. We enjoy the trees planted by our parents and our children will enjoy trees only if we plant and maintain our share. Funding for urban forestry at the federal level has been minimal but it has produced significant benefits. The State of Maryland's urban forest program supported in part by programs and technical assistance of the U.S.D.A. Forest Service have produced visible improvements to my local communities of Annapolis and Anne Arundel County. My professional work on landscape architectural projects in Maryland, Virginia, and the District of Columbia often relies on information provided by the U.S.D.A. Forest Service.

Research related to urban forestry is critical to the future of our urban forest. This funding is part of the Forest Service's forest resource analysis research budget, and not a separate line item. I am in support of a funding level of $1.5 million, however, I feel this amount must be increased in future years to meet new research needs. It is currently more difficult to grow trees in urban areas than we experienced 30 years ago. This is a result of the changes in the way our cities are developed. Streets are wider and development is at a higher density. The technology of construction has changed. Heavier and more efficient machinery are capable of moving larger volumes of earth and make deeper cuts. Soil at construction sites becomes highly disturbed with greater compaction. There has also been a significant erosion in environmental quality. Air pollution and a variety of chemical assaults including acid rain, de-icing salts, cleaning fluids, lawn chemicals, etc. daily attack our trees. All these changes and other factors make it difficult to grow trees to maturity. In order to pass on a legacy of mature trees to the next generation we must start the research now to develop new species and methods to overcome these new obstacles.

Tree lined streets are part of America's hometown image. This is an image which is slipping away. Please continue your support for urban forestry items.

Thank you for providing me the opportunity to submit this statement for the record.

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## STATEMENT OF RALPH C. SIEVERT, JR., CITY FORESTER, DIVISION OF URBAN FORESTRY, CLEVELAND, OH

As the City Forester in Cleveland, Ohio I have seen first hand how the Urban Forestry Assistance Program has helped Ohio's municipalities. This is because I was employed by the Ohio Department of Natural Resources as Urban Forester for seven (7) years. For this reason I am concerned about the proposed appropriation for the Urban Forestry line item in the USDA Forest Service 1988 budget. The preservation of the $2.0 million funding level for this project is very important.

The benefits derived from this minimal level of funding have been significant. For example, in my home state of Ohio, the US Forest Service's Urban Forestry Assistance Program and grant monies have been a boom to Ohio's economy. The increased sale of trees and shrubs have forced Ohio's nursery industry to expand due to increased demand.

Ohio's tree maintenance industry has also grown as more municipalities seek to improve tree health through pruning and removal. Here in Cleveland we have recently completed $200,000 worth of removals as a result of consultations with Ohio's area Urban Forester.

Probably the greatest benefit from Urban Forestry Assistance comes in the form of community pride. In Ohio we will again lead the nation with over 100 Tree City USA's as designated by the National Arbor Day Foundation. The enclosed article I authored in the Journal of Arboriculture helps explain this enthusiasm which translates into more jobs in Ohio.

Urban Forestry Research is also a very important part of improving the quality of life for Urban residents. This funding is part of the US Forest Services' Forest Recreation Research budget and not a separate line item. Please continue the $1.0 million funding level for this research.

Probably the best justification for Urban Forest Research is the evidence provided to justify the existence of municipal tree programs. We are constantly discovering how trees make cities more inviting and comfortable. We are learning how to keep urban trees alive longer and which ones last longer. This helps us improve our investment in good urban forestry.

It is difficult to describe the values which urban forestry provides to our countries' cites. However, most observant individuals are able to see where proper tree care has been implemented. Higher investments and people activities are always associated with good urban forestry. Urban Forestry is good business in Ohio and elsewhere.

Thank you for this opportunity to submit a statement for the record. If I can provide further assistance, feel free to call at (216) 664-3104.

## STATEMENT OF ROGER G. HOEKSEMA, URBAN FORESTER, MICHIGAN DEPARTMENT OF NATURAL RESOURCES

As urban forester of the Michigan Department of Natural Resources, I have a deep interest in the future of urban forestry. I am concerned about the proposed appropriation for the urban forestry line item in the USDA Forest Service 1988 budget. It is essential to maintain funding levels at $2.0 million for this important project.

Funding for urban forestry has always been minimal, yet the benefits have been significant. For example, here in Michigan, when grant monies were available, we set up matching grants to local communities on a 50/50 basis. Most of these grants were for street tree inventories, development of tree management plans, or employee training in safety and proper tree care. Tree inventories, for instance, enable community planners to find out what and where their greatest needs are so they can prioritize the work. This results in stretching the available money, achieving greater efficiencies.

Urban forestry research is also an important part of improving the quality of life for our citizens and communities. This funding is part of the Forest Service Recreation Research budget, and not a separate line item. This research has been very valuable and needs to be maintained at last year's level of at least one million dollars.

Urban forestry research is needed to find and develop trees suitable for our communities. Trees growing in cities grow in an extremely harsh environment. They face compacted soils, great extremes in temperature, and physical abuse. Certain trees have different characteristics which enable them to better survive. We need money to find and develop these trees.

Urban forestry may be an unfamiliar term to you. But what it is all about is as basic to the American people as you can get. It is about the perpetuation of the trees in our yards, along our streets, in our parks, and in our greenspaces. Urban trees cannot satisfactorily fend for themselves because what they face is rapid change and unnatural processes. They need help if we are going to continue to enjoy them.

Urban forestry is directly related to quality of life and community pride. Many of Michigan's communities are blessed with magnificent trees, but they are old and are beginning to deteriorate rapidly. Another ten to twenty years the picture is going to look much different, and its not going to be pretty. It takes time to grow trees so we need to begin now.

Back in the early 1980's, our Department had an urban forester. I was that urban forester. We accomplished much. Today I support urban forestry only as I can squeeze the time from my regular duties.

We are not talking about much money here as far as the federal budget goes, but it is money that can do much for our people and our future. Please give this matter serious consideration.

Thank you for this opportunity to submit a statement for the record.

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## STATEMENT OF STEPHEN A. JANGER, PRESIDENT, CLOSE UP FOUNDATION

Mr. Chairman and distinguished Subcommittee members, my name is Stephen A. Janger. As President of the Close Up Foundation, it is my privilege to provide you with this testimony requesting increased funding for the Department of the Interior's Bureau of Indian Affairs and Office of Territorial International Affairs to provide technical assistance and fellowships for Close Up's educational efforts with Native Americans, Native Alaskans and students in the various Pacific Territories and Freely Associated States.

As you know, Close Up is a nonprofit, nonpartisan educational organization dedicated solely to the idea that, within a democracy, informed, active citizens are essential to a responsive government and a supportive community.

Since our inception almost 18 years ago, we have worked hard to include students from all economic, cultural, and academic backgrounds to motivate them to become active citizens through experiential learning activities. We have also adapted the program to serve the needs of special constituencies such as limited-english proficiency students, students with physical impairments, and adjudicated youth. We have worked in association with the American Association of Retired Persons (AARP) to develop a program for older Americans and are currently working with the National Association of Elementary School Principals (NAESP) to develop a new national civic achievement award program for grades five through eight.

Numerous studies and reports have appeared recently substantiating that high school students -- and the population in general -- do not have enough factual information or conceptual understanding of our history or democratic system of government. This lack of knowledge contributes to a lack of participation in the democratic process at all levels, especially for those who are geographically or culturally isolated.

In recent years, Close Up has worked to ensure participation of Native Alaskans, Native Americans, and students from American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam. Last year, several Members of Congress, who were aware of our strong commitment to working with neglected constituencies and special populations, expressed interest in expanding our education efforts with Native Americans, Native Alaskans, and students in the various Pacific Territories and Freely Associated States. They indicated that Close Up, with its proven programmatic expertise in motivating students who may feel geographically or culturally isolated, was in a unique position to respond to the educational needs of these populations. The result was the inclusion of language into the Fiscal Year 1988 Interior Appropriation bill (Public Law 100-202) providing for technical and fellowship assistance grants from the Department of the Interior to the Close Up Foundation.

Specifically, $540,000 was provided to increase the participation of students and educators from Guam, the Commonwealth of the Northern Mariana Islands, American Samoa, the Republic of Palau, the Republic of the Marshall Islands, and the Federated States of Micronesia in the Close Up Program. Additionally, $120,000 was included to increase the participation of Native American students and their teachers from Alaska and from Bureau of Indian Affairs (BIA) and contract tribal high schools.

Mr. Chairman, on behalf of the more than 300 students of need and educators who will participate in the Close Up Program as a result of these grants, I wish to express heartfelt gratitude to you and members of this Subcommittee recognizing this special assistance came at a time of serious budgetary constraints, all of us at Close Up are most appreciative of your belief in our work and your actions taken last year to join in our efforts to reach these neglected populations. The positive response we have received from students, their families, educators and government officials has been overwhelming.

## Close Up Foundation Pacific Islands Outreach

The goals of the Pacific Island Outreach program are twofold: 1) to demonstrate how the American model of democracy functions and to foster the interest, knowledge, and skills needed to participate effectively in the democratic process of government, and 2) to increase mutual understanding of the cultures and concerns of America's diverse citizenry and the populations of areas with which we have a special relationship.

The Close Up Program will offer Pacific Islanders the unique educational opportunity that is now afforded to 25,000 students and teachers annually throughout the fifty states, the District of Columbia, the Virgin Islands, the Commonwealth of Puerto Rico, and more than twenty foreign countries.

Through the FY'88 Interior Appropriations bill, Congress made possible the participation of up to 120 students and 30 educators from the Pacific Islands in the Close Up Program. The Foundation will actually involve some 140 students and 30 educators. Close Up has recommended strongly that schools select students of need who will benefit most from this experience, regardless of academic standing, or displayed leadership ability.

In Washington, D.C., Pacific Islanders will share learning experiences with student and teacher peers from various communities throughout the United States and examine American democracy and the shaping of public policies. They will travel to Williamsburg, Virginia to explore the roots of democracy in the United States. They will then journey to Philadelphia to examine the Constitution, its origin, its evolution and its impact on their own constitutions. Finally, they will go to New York City for study visits to cultural and business centers, ethnic neighborhoods, and the United Nations.

In addition, one educator and three students from each of the six Pacific areas will attend Close Up's five day conference on Pacific Rim Trade held in San Francisco. Many Pacific Islanders will also take part in a public affairs television program produced by Close Up in cooperation with the Cable Public Satellite Affairs Network (C-SPAN). Participants will question experts on issues relating to the United States, the United Nations, and the Pacific region. Teachers will receive taped copies for their schools.

## Close Up Foundation Native American Outreach

The goal of the Native American Outreach effort is to increase representation in the Foundation's Washington Program for Native Alaskan and Bureau of Indian Affairs and tribal contract students and teachers. Few populations in America are more geographically and culturally isolated or have demonstrated a greater educational need.

In the past, Native Alaskan and Native American populations have taken part on a limited basis through Close Up's own fundraising with the private sector and the Allen J. Ellender Fellowship Program established as a part of Close Up's citizenship education efforts. Public Law 100-202 included funds to allow Close Up to increase participation of Native Alaskans of up to 10 educators and 40 students of need.

The Foundation is targeting more rural and remote communities throughout Alaska and will, with this funding, reach students in 25 school districts. The Alaska Department of Education has assisted the Close Up Foundation in the selection of the students based on geographic diversity, low-income representation, and demonstrated interest. In addition, the Alaska Department of Education has selected five educators based upon their proximity to major transportation departure points, geographic diversity, and most importantly, commitment to maximize the educational experience.

For the BIA and tribal contract high schools, the legislation provided for up to 20 teachers and 80 students to participate in Close Up. Eighteen teachers and 72 students are actually scheduled to participate, along with the program director of the National Indian School Board Association.

A distinguished national committee of Indian educators has been established to assist in the school selection process. Close Up has recommended that academic achievement not be the sole determinant in the selection of the schools' representatives and that at least two students from each school be either sophomores or juniors for continuity and local program organization.

## Need for Increased Funding

In the coming weeks the first beneficiaries of these grants will arrive in Washington. We invite you to observe the program and witness firsthand the true educational excitement you have made possible.

Mr. Chairman, from every educational perspective there is more need with these important and neglected populations than we can now address. For this reason, we respectfully request that increased funds be made available through the Department of the Interior for FY'89. Specifically, we are hopeful you will consider an increase of $280,000 over the $660,000 provided by PL 100-202. The following information provides details regarding the requested increase.

### Proposed Pacific Island Outreach for 1989

| | Approved by Congress (PL 100-202) | 1988 Plans | 1989 Request |
|---|---|---|---|
| Students | 120 | 140 | 140 |
| Educators | 30 | 30 | 60 |
| Funding Level | $540,000 | $540,000 | $710,000 |

Rationale: The success of the Close Up Program is largely dependent on teachers' participation and enthusiasm. By investing in teachers, measurable improvements are made in the quality of instruction within their schools. Close Up's efforts to reach students are, in effect, carried out and multiplied through teachers who share their newly-acquired knowledge and skills with all their students. Student participants also share their learning experience with their peers.

The educational community in the Pacific Island region has expressed the strong need for staff development and improved educational resources. Close Up seeks funding to expand teacher participation to up to five additional teachers for the six Pacific areas currently served and to conduct a comprehensive educational conference in Guam with a national teleconference capability.

Student participation in the San Francisco Pacific Rim and Washington programs would continue at the 1988 level.

### Proposed Native Alaskan Outreach for 1989

| | Approved by Congress (PL 100-202) | 1988 Plans | 1989 Request |
|---|---|---|---|
| Students | up to 40 | 40 | 85 |
| Educators | up to 10 | 5 | 9 |
| Funding Level | not specified; included in $120,000 | $52,000 | $103,000 |

Rationale: Close Up requests increased funds to more than double the number of students in 1989 and for additional teachers to accompany students. Due to the high cost of transportation, a greater allocation is required to reach out to students and teachers in remote areas.

Close Up also seeks increased funds to provide for a local program and a teleconference to help students and teachers share what they have learned and to involve a national television audience. Newly-gained knowledge is reinforced through the development of a local government studies program where students, teachers, and community leaders determine the issues to examined.

### Proposed Native American Outreach for 1989

| | Approved by Congress (PL 100-202) | 1988 Plans | 1989 Request |
|---|---|---|---|
| Students | up to 80 | 72 | 140 |
| Educators | up to 20 | 18 | 35 |
| Funding Level | not specified; included in $120,000 | $68,000 | $127,000 |

Rationale: Close Up requests increased funds to double the participation of students and teachers and to provide for a national educational teleconference.

Close Up has already received requests to conduct a national teleconference centering around local program activities on the largest reservation in the country. This Navajo reservation reaches into four western states. Further, we anticipate conducting a teleconference during the National Indian Education Association annual meeting to be held in Oklahoma later this year with two to five thousand members in attendance.

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Mr. Chairman, I wish to thank you and the Congress for the courtesy that you have extended to the Close Up Foundation and for the opportunity to broaden our work with these often overlooked populations. It is one of the most meaningful and valuable initiatives we have ever undertaken. I appreciate the opportunity to submit this testimony and I hope you and the Subcommittee will give full consideration to these requests.

We would be happy to respond to any questions you may have.

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## STATEMENT OF EDWARD H. ABLE, JR., AMERICAN ASSOCIATION OF MUSEUMS

Mr. Chairman, the American Association of Museums (AAM) appreciates the opportunity to submit this statement on behalf of FY 1989 appropriations for the Institute of Museum Services. AAM is an organization of over 10,000 members, including 8,000 museum professionals, and over 2,000 museums of all types. We are heartened by and commend the President and IMS director Lois Burke Shepard for the recommendation to maintain current year funding for the IMS in FY 1989. This new attitude on the part of the administration would not have been brought about without the strong support shown for the IMS by the Congress and by this subcommittee.

However, the needs of museums have far outpaced IMS' funding over the years, and these needs continue to multiply. Since its establishment eleven years ago, the IMS has provided critical assistance to museums of all types and sizes for their general operations, for conservation and for technical assistance through the awarding of more than 5000 grants totalling nearly $130 million. Yet, the cost of keeping America's museums open approaches and may now exceed $1 billion annually. Museums are not, and cannot afford to be, dependent on federal support. The modest investment in America's museums through the IMS, however, must not only be maintained but improved, to the greatest extent possible, in order to accomplish the monumental tasks of museums to collect, preserve and exhibit America's cultural patrimony.

The Institute of Museum Services is the only federal agency that provides support to all museums, including those with living collections -- zoos, aquariums, botanical gardens, arboretums and nature centers, as well as those museums with non-living collections -- art, history, natural history and childrens museums, science-technology centers, historic sites and houses. Through grants made by the IMS for general operating support, the cornerstone of IMS' programs, museums are assisted in basic operations and functions, such as general maintenance, security, administration and education. The support for these essential, though somewhat mundane functions in museum operations cannot be overemphasized. With such large capital assets, museums know the value of general operating support.

With publication of the Museums Collections Survey, in 1985, a project undertaken by the AAM, the National Institute for Conservation, the American Institute for Conservation, and with the assistance of the Institute of Museum Services, specific priorities were identified by museums in the area of general operations. Many of the needs identified in the survey -- continuing education for staff for improvements in exhibitions and public programs, adequate storage facilities and environmental controls, improvements in records and inventories, research and interpretation of collections -- continue to be of the highest priorities for museums. In an era of intensified scrutiny of the operations and financing of museums, museum professionals have increasingly focused on achieving sound management and operation of their institutions. IMS support for general operations, staffing, facilities, training and education have increased the ability of museums to successfully undertake these efforts.

A critical adjunct of the IMS General Operating Support program, which is often understated, is the Museum Assessment Program. For small and young museums many in rural or urban neighborhood areas that have few staff, limited resources and pressing needs, the Museum Assessment Program provides guidance through a self-study and peer-review process in all functions of museum operations, including governance, staffing, preservation, and collections management. The program, which served 248 museums in 1987 and more than 1,800 museums in the past seven years, awards non-competitive grants to all institutions that meet a basic set of criteria. Many of the museums that have participated in the Museum Assessment Program have subsequently competed successfully for general operating support to implement improvements.

Another IMS program serving critical needs in museums is the Conservation Project Support program. In 1986, the IMS and the National Museum Services Board redirected the conservation program to focus on prioritization and long-range planning in conservation to meet overall museum conservation needs. This new focus is enabling museums to conduct surveys of environmental and collections conditions, to conserve specific objects and to initiate conservation training and research. Meeting the new criteria which emphasizes conservation planning, by surveying collections and improving environmental conditions, is an arduous task for many museums. Yet, this emphasis will help many museums to establish a framework from which to develop long range plans and to establish a protocol for the treatment of individual objects and collections.

Among the 248 conservation project support grants made in 1987, many were for general collections and environmental surveys. With their first conservation grant, the Springfield Science Museum of Springfield, Massachusetts, will use these funds to document general conservation needs for their collection and conduct an environmental study of a newly installed storage facility. For the Connecticut Historical Society, which received a 1984 conservation grant specifically for storage facilities of its collection of historic clothing, its 1987 conservation grant will now allow the museum to conduct a general survey of other collections and the current environmental conditions and to assess the conservation needs of collections. For museums who have already developed a carefully planned conservation effort, such as the Oregon Art Institute, 1987 conservation grant funds will be used to perform conservation measures on selected paintings and the treatment of individual objects.

The task of minimizing the inevitable deterioration of objects and providing the maximum possible protection for museum collections is enormous, yet, at the very heart of museums' mission. Museum professionals recognize the necessary foresight the Conservation program guidelines prescribe and are making great efforts to achieve these goals.

On the surface, America's museum community as a whole appears to be in relatively good health. Museum attendance, at zoos, historic sites, science centers, and at institutions in all disciplines of the museum universe, has grown significantly over the past twenty years and continues to reach new heights. Museum acquisitions also appear to be on the rise. New and imaginative exhibitions, in art museums, history museums and the like are continually in development and on display for public enjoyment and education. Outreach programs continue to attract, educate and enlighten new audiences across the country, from the rural West, to the urban East. Many museums are undertaking or completing expansion of their physical plants, and preparing capital and other fundraising campaigns to enhance their operations and build public support. At first glance, the picture looks good. But there are genuine fears and real uncertainties lurking behind this assessment.

Unlike many other cultural institutions, museums generally operate in the black. With strict and sound internal fiscal policies and procedures, museums are run with extreme care and a tight hand. Museums are multi-faceted institutions, devoting resources to the care and preservation of objects, to research and interpretation of collections and to education through outreach and public programming. As museums have increased their audiences and reached out more into their communities, there has been an accompanying increased demand from the public for additional programs and services. Meeting all these objectives while, at the same time, successfully balancing their budgets, when costs are skyrocketing, is like walking a tightrope. The outcome of this balancing act has meant a gradual erosion in museum's ability to perform their mission of preservation and interpretation of collections. It is here that IMS funding is so critical. Without it, the situation could be much worse.

In trying to meet these tremendous challenges, museum directors have necessarily become more sophisticated in running their institutions. In addition to often having to reduce costs through cuts in personnel and public programs, many museums are seeking measures to increase income through higher adminission fees and growing development programs. Even in these areas, however, there are fears. As admission fees climb, attendance is likely to become more limited in numbers and the diversity of audiences reached. For development officers, involved in the business of attracting museum memberships and private support from individuals, corporations and foundations, new obstacles exist.

In 1986, the Congress approved a comprehensive reform of the U.S. tax code. To the dismay of museums, part of this tax overhaul included the elimination of the charitable contributions deduction for nonitemizing taxpayers. On top of that, the 1986 Tax Reform Act also included the first statutory limitation upon the ability of donors to enjoy the benefit of a full fair market value deduction for gifts of appreciated property. Although no statistical documentation yet exists to demonstrate the loss of both cash contributions and gifts of objects to museums (the AAM is just now undertaking a three year study in trends of giving of both cash and objects to museums), anecdotal accounts abound. In March 1988, Charles C. Eldredge, director of the National Museum of American Art, testified before your counterpart subcommittee in the House that, largely because of the change in rules regarding inclusion of appreciated property in the alternative minimum tax, the number of art works donated to his museum dropped from 820 in 1986 to 196 in 1987, and the value of donated artworks from $12.5 million in 1986 to $392,000 in 1987. The loss of these works from a major American museum is a loss to the public. The narrowing of the base of giving overall is clearly being felt in museums.

Two months following the enactment of the Tax Reform Act, in November 1986, a congressional review of the income-producing activities of tax-exempt organizations, including those of museums, was announced by the House Committee on Ways and Means. Although no formal action has yet been taken, many in the museum community fear that future action may restrict museums' ability to engage in the revenue-producing activities that we were not long ago encouraged to explore.

The October 1987 stock market "crash" was not only felt on Wall Street, and in corporate board rooms around the country, but also in museums. Although no study has yet been conducted on the impact of the stock market crash, many predict that giving to museums may drop by ten percent over the next year. For some museums, the impact was immediate: the Nelson-Atkins Museum of Art in Kansas City, Missouri, experienced a drop of ten percent in their endowment immediately after the market plummeted. The museum has delayed filling staff vacancies until the endowment income is replaced or other budgetary retrenchment measures are achieved. The effect of loss in stock value on the portfolio of foundations that support museums is also worrisome.

Many external forces, largely beyond the control of any one museum, or the museum community collectively, are affecting the daily operations of our museums and their overall mission to collect, preserve and exhibit our natural, artistic, historic and scientific achievements. The support available to and received by museums through the Institute of Museum Services is therefore important not only for the dollars and cents that are available to museums, but also for the recogition and support of the critical work of museums this agency symbolizes from the federal government, the Congress and the people of our country. The Institute of Museum Services may be a small federal agency, with a small budget and a small staff, but it does a big job for America's museums. We urge its continued, and hopefully increased, congressional support.

## STATEMENT OF THE NAVAJO NATION

Mr. Chairman, Members of the Committee, the Navajo Nation appreciates the opportunity to provide you with this statement on the Indian Health Service budget request for FY'89. We hope that this statement assists you in your deliberations during the appropriations process. The Navajo people also appreciate your Committee's role in ensuring that the Indian Health Service lives up to its trust responsibility in providing for the health needs of Indian people.

For those of you not familiar with the Navajo Nation, we would like to provide you with the demographics of our reservation. The Navajo Nation is the largest Indian tribe in the U.S. with a population rapidly approaching 200,000 -- nearly 20 percent of the reservation-based Native Americans in the U.S. are Navajos. Our people are young; 50 percent of Navajos are under 21, and our average age is 17.5. We are growing rapidly at 3 percent per year which is three times the national average.

Unfortunately, the living standards of Navajos are still dramatically below those of people living in the surrounding states. According to the 1980 Census, the per capita income of a Navajo was approximately $2,400. This is approximately 1/3 the levels of people living in Arizona, New Mexico and Utah. Our unemployment rate is between 30 percent and 40 percent, and is much higher in several areas throughout the reservation. These levels are approximately five times the levels of the surrounding states.

### The Indian Health Service Budget

Congress appropriated $1,011,999 for IHS programs in FY'88. This aggregate amount includes $62.511 million appropriated by the Congress in FY 1988 which the IHS proposes to merge with the overall budget. Thus, fiscal year 1988 appropriations were closer to $943 million. The Indian Health Service proposes to spend approximately $987 million in FY'89. Thus, the IHS proposes budget growth of approximately 4 percent excluding facilities. This figure must be looked at in the overall context of health care delivery.

As you know, health care inflation has risen at approximately 10-12 percent over the past decade. Additionally, the Native American population is growing rapidly. Thus, the Indian Health Service budget is not growing rapidly enough to offset inflation associated with health care delivery and the increased number of Indians eligible for Indian Health Services. The Navajo Nation believes that Congress must add a minimum of $50 million in budget authority if current service levels are to be maintained. What follows is an analysis of important programs serving the Navajo people and all Native Americans.

## Indian Health Facilities

It is obvious that modern health facilities are required if quality health care is to be delivered to Indian people. This is especially so on our reservation which spans three states and is the size of West Virginia. Often, Navajos have to travel hundreds of miles to a facility. Due to the underdeveloped nature of our infrastructure, traveling exhaustive distances can often make the difference between life and death.

Over the past several years, Congress has had the foresight to appropriate funds for new health facilities on the reservation. Funds were appropriated for the construction and staffing of the Crownpoint health facility. In the last 2 fiscal years, funds were appropriated for the planning and design of new hospitals in Shiprock and Ft. Defiance. This year we are seeking money to replace an existing health center in Tohatchi, New Mexico. We require $700,000 to plan and design this new facility. At the current time, Navajos living in Tohatchi must travel to Gallup Indian Medical Center to receive health care. An analysis has shown that the treatment often required at Gallup is not available at the facility and the influx of Navajos from other communities has created pressure on that facility. The Indian Health Service approved the Tribe's Planning Justification Document (PJD) for the Tohatchi Health Clinic in June of 1986. It is attached to this statement and we would request that it be entered into the record.

In spite of the obvious need for new and modern health facilities on the reservation, IHS has essentially attempted to get out of the business of constructing new health facilities. Last year, several rescissions were proposed, that if implemented, would have cancelled funding for the planning and design of Shiprock Indian Hospital and delayed several renovations of facilities that were literally crumbling. Thankfully, none of those rescissions were approved. IHS proposes to spend $2.45 million on one facility and a study in FY'89. We would urge this committee to ensure that IHS fund those projects which are on the Secretary's priority list. The Navajo Nation strongly opposes the IHS's position of not funding Indian health facilities and believes it is a violation of the federal government's trust responsibility to meet the health needs of Indian people. Without upgrading and adding new facilities the whole direct care system of IHS could collapse, since there will have to be more reliance placed on contract care, which is demonstrably more expensive to provide.

## STATEMENT OF C. RICHARD CAHOON, PETROLEUM MARKETERS ASSOCIATION OF AMERICA

The Petroleum Marketers Association of America (PMAA) appreciates the opportunity to describe its concern over the proposed lack of funding for Oil Heat R&D in the Department of Energy's budget request for Fiscal Year 1989. PMAA is a national federation of 43 state and regional trade associations representing almost 11,000 independent marketers of petroleum products, equipment and service. While most of these marketers are small businessmen, collectively they sell over three quarters of the home heating oil and half of the gasoline consumed in America today.

For FY88, Congress allocated $500,000 of DOE's Conservation budget to continue the combustion research program on oil heat equipment. The combustion program is an element of a key activity called Technology and Consumer Products, within the Buildings and Community Systems Division, which reports to the Assistant Secretary for Conservation and Renewal Energy. In this statement, PMAA advocates continuing the program for FY89, at an increased funding level.

### R&D Benefits for Consumers

Federal research has been very beneficial to consumers of oil heat by providing greater options for conservation, thereby benefiting the nation as a whole. The oil heat program that was started in 1976 at Brookhaven National Laboratory is one of the most successful stories in federal research history.

With an R&D investment of less than $10 million, Brookhaven demonstrated, among other things, the success of the flame retention burner that has become the industry standard for new oil heating equipment. New flame retention equipment and retrofit devices for existing oil burning equipment were estimated to save consumers over 10 billion dollars through reduced oil usage by the end of the next decade. Additional improvements that have resulted from development or demonstration activities at Brookhaven include typical energy savings of 9%-10% for vent dampers and flue heat recovery systems used with hydronic oil boilers. Cumulative energy savings for improvements to high efficiency burners and boilers are expected to exceed another 7 billion dollars by the year 2000.

### Reducing Unnecessary Oil Dependence Thru Focused R&D

In addition to providing fantastic savings to consumers by means of dramatic reductions in oil usage, additional R&D on oil heating systems can address the oil dependency issue that some groups are making so much noise about lately. While PMAA believes that the current and forecasted glut of crude oil significantly reduces any potential problems with oil dependence, there is no question that the focused R&D program for oil can make a major contribution toward reducing any unnecessary oil dependence.

PMAA strongly supports continuing the current research effort and believes that there are several *additional projects that should be undertaken by DOE in FY 89 that are equally as promising in terms of costs and benefits as the example of the flame retention burner*. These projects have been identified and are described in detail in a study by

Battelle Pacific Northwest Laboratory (PNL-5896, September, 1986). Briefly, a total funding level of $3.8 million is required, with specific program recommendations in thousands of dollars as follows:

Technology Transfer (650)

- Identify technical & institutional barriers to oil energy conservation.
- Promote the use of DOE recognized energy conservation options thru symposia, workshops, and consumer information.

Overcoming Equipment Efficiency Barriers

- High venting system losses. (400)
- Lack of durable heat exchanger materials. (750)
- Declining fuel quality; impacts on atomization and combustion. (740)
- Inadequate equipment operating and service diagnostics. (930)
- Poor system integration. (330)

According to the Batelle Pacific Study, Appendix Table A.1, the estimated fuel savings for these programs could total as much as 39 billion dollars. Fuel savings estimates for the various program elements range between 5% and 32%. Estimated market penetration rates range from 5 to 50%. Based on annual fuel oil consumption of one quadrillion Btu, these projects are expected to save consumers as much or more than the retention head burner is saving. Estimates of the cumulative savings over 20 years for each program element range from $779 million to $12.6 billion.

## Federal Role is Needed

Due to the non-monopoly operations of fuel oil marketers who compete freely with one another, a federal R&D role is needed for the oil heat industry, even more than for competing industries that benefit from strong federal participation in R&D. The federal R&D programs for other fuels augment the work of the Gas Research Institute and the Electric Power Research Institute, which are funded by hundreds of millions of dollars in surcharges on gas and electric rates that are approved by federal and state authorities.

By contrast, local oil heat marketers have no exclusive sales territories and no government approval or means to impose R&D surcharges. Major oil companies, which produce and refine oil products, do not accept responsibility for any R&D activities on behalf of equipment manufacturers or any end users, including space conditioning, automobiles or airplanes.

Most manufacturers of oil heat equipment also make gas and/or electric appliances. With a relatively smaller sales potential in oil, it is understandable that equipment manufacturers commit their limited resources to the gas and electric equipment that is the focus of the government and utility research efforts.

Therefore, it is up to the federal government to provide funding for oil heat R&D, in order to maximize conservation options to the 15 million U.S. homes that heat with oil. While PMAA does not subscribe to the view that energy supplies will dry up tomorrow, it would be wise to have a strong conservation program to reduce consumer energy demand for home heating oil by taking advantage of exceptionally high benefit/cost ratios for oil heat R&D.

## Budget Limitations

PMAA supports efforts to lower the deficit through reductions in federal spending, and is not asking for additional budget authority. PMAA believes that DOE's $16 million budget proposal is more than adequate for DOE to meet the needs of its various constituent publics, including oil heat.

Since 18% of American homes use oil heat, their needs for increased conservation options should be protected by the allocation of $3.8 million to be devoted exclusively to oil heat. After all, the federal government is devoting billions of dollars to competing sources of energy such as natural gas and electricity from coal and nuclear power.

PMAA agrees with DOE's national energy policy of balanced and mixed supplies, and PMAA encourages DOE to include the oil option in the energy supply picture, so that DOE funding is provided for oil as well as forms of energy in competition with oil for a share of the home heating market.

PMAA believes that if DOE is going to continue any R&D programs at all, then it is only fair to the 18% of American taxpayers who heat with oil that oil heat get its tiny slice of the R&D budget pie. PMAA urges the support of this Subcommittee to continue an oil heat program with such an excellent and beneficial track record.

Thank you for your consideration of heating oil marketers and consumers.

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## STATEMENT OF THE PASSAMAQUODDY INDIAN TOWNSHIP TRIBAL GOVERNMENT

Chairman Byrd and members of the Committee, my name is Jeanette Neptune, and I am the Lt. Governor of the Passamaquoddy Indian Township Tribal Government. I am accompanied by Darrell Newell, a member of the Tribal Council. I appreciate being able to submit this testimony for your Committee's hearing record.

The Passamaquoddy Tribe is the eastern-most tribe in the United States. The Indian Township Reservation is located in Washington County in the State of Maine and is one of the two reservations of the Passamaquoddy Tribe. It comprises 23,000 acres of land near the town of Princeton. In addition, the Tribe has acquired 130,000 acres in other parts of the State pursuant to the Maine Indian Claims Settlement Act. We are still pursuing the acquisition of additional trust acreage as provided in the Settlement Act.

At this time last year, Governor Robert Newell took the opportunity to submit testimony to this subcommittee because he felt it important to share the concerns which are under daily consideration by the Tribal Government. As I look back to the testimony presented last year I find that some progress has been made in some of the items that were addressed, but by and large, the same major concerns are still on the list of considerations, with perhaps the order in which they appear as the only change.

### Forestry Development

As stated last year, we are concerned about the Foresty Development budget. My biggest concern here is that the B.I.A. tells us that we are not eligible because our forestry lands were not in trust prior to 1977. In 1978, this Subcommittee added $6.6 million to the B.I.A. budget and stated in your report that the money "will allow full implementation of the 10-year plan to liquidate the 912,000 acre backlog of forest development work in addition to keeping current with the 40,000 acre annual accrual. Besides meeting these additional workload requirements, an increase in quality of services will be achieved." We have forestry lands that have been cut over and are in need of Forest Development monies. These are clearly among of the types of lands the Committee Report was referring to when you mentioned the 40,000 acres that were accruing annually. It is clear from reading the Committee's Report that we should be eligible for these funds and we ask the Committee to direct the Bureau to make Forest Development monies available to us.

### Fire Suppression

In our testimony last year, we did not highlight this item but did include it as a budgetary concern. We believe that our Tribe should be the direct recipient of this funding instead of the State of Maine. Mr. Chairman, there was a brief time when the practice of direct funding to the Tribe did take place. We know of no reason why this practice couldn't resume. Having had the experience with both methods, we feel that direct funding to the Tribe on this specific item is the most workable.

We are getting no funding for forestry inventories, forest fire suppression or pre-suppression (8860 and 8861), and we are getting zero for forest road improvement. Without Forestry Development money we are unable to do timber stand improvement (TSI) or reforestation. It is essential that we receive funding for these programs if the United States is to fulfill its trust responsibility.

We again ask the Committee to direct the B.I.A. to increase our Forestry budget in general and allow us to use the increase for forest development type activities, such as thinning, so that we can properly manage our cut-over lands. We have been acquiring more forestry lands and are going to run into more problems. We request Committee consideration of $450,000 for Forest Development in FY '89. Relative to Forest Development and Forestry in general, we add our voice and support to the testimony of the Inter-Tribal Timber Council and urge the Committee to oppose the BIA-proposed cutbacks in the Forestry budget.

Law Enforcement

The eventual total acreage for the Passamaquoddy Tribe will be 173,000 acres when all of the land provided for in the Settlement Act has been purchased. This land will be located in six counties throughout Maine. The distance from one point to another can be up to 300 miles. This, and the fact that law enforcement is essential, are two compelling reasons why adequate funding is so critical. Yet, when we examine our funding allocations each year, the allocation for this area keeps shrinking.

In order to respond adequately to all aspects of law enforcement, we are required to insure 24 hour dispatch service by the Tribal Police and Rangers. Our FY '88 allocation of $177,000 is inadequate to meet minimum law enforcement needs. We request that a $240,000 budget be approved for FY '89.

Real Estate Services

As we work toward land acquisition, the need for adequate real estate services grows even greater. In the initial stages of our federal recognition we didn't perceive that this area would grow so much. As we strive today for proper professional standards in this department, we find the BIA allocation of $9,000 for FY '88 is far too inadequate to keep up with the need. We request FY '89 funding of $20,000 to allow full-time staffing.

Housing Improvement Program

The funds allocated each year have always been far too inadequate to make sufficient headway. We try our best to stretch the allocation, but it seems as if we are always fighting an uphill battle to make any forward progress. We request that the Committee provide H.I.P. funding of $55,000 for FY '89.

Budget for Eastern Area Tribes

As noted previously, I have a number of questions, observations and concerns on the funding level of the Eastern Area. I would like to ask this Committee if you would please investigate the budget of the Eastern Area Office, and the allocations for the Eastern Tribes, and compare those to the budgets for other area offices and what the tribes in those areas receive. I will give you one example of why I ask for this assessment. The Eastern Area tribes presently get 2% of the entire BIA (Transportation Department) highway allocation. There are now 23 tribes in the East and we have to split up 2% of the budget leaving 98% for the other 11 area offices. Of that 98%, 40% goes to the Navajo Tribe. This is simply unequitable. I am aware that the Navajo Reservation is by far the largest and that they have a lot of bad roads, but so do we. The Eastern Area has grown from 7 tribes in 1973 to 23 in 1987, an increase of over 300%. I can assure you that no other area has grown 300% in the past 14 years and I am confident that the budget for EAO has not grown proportionally nor has the budget of the BIA been realigned to reflect our growth. We need commensurate increases not only in services to the tribes, but also in staffing at the Area Office itself. They are so understaffed that it takes eons to get our paperwork processed. This is not meant as a criticism of the EAO staff, but simply a statement that they cannot keep up with all the growth, particularly in contracting, that has been experienced in the Eastern Area.

## Child Welfare

The B.I.A. has recently taken a position on Indian Child Welfare Act funding that threatens the program on the Indian Township Reservation. Because this action violates both laws and policies established by Congress, we believe the Committee should be apprised of the situation.

In January of this year, the Eastern Area Office informed us that it had been ordered by the B.I.A. Central Office to change its procedure of accepting separate Indian Child Welfare grant applications from the two separate reservations of the Passamaquoddy Tribe. The B.I.A. did not consult with the Tribe on this decision, nor has it provided the Tribe with any written explanation.

The two Passamaquoddy reservations are located more than sixty miles apart, and have separate governors, lieutenant governors, and tribal councils, and separate tribal administrative agencies. The two Councils sit together as a Joint Tribal Council on matters affecting the Tribe as a whole, but each reservation is largely self-governing as to internal matters, including Self-determination Act contracts and grants and Indian Child Welfare programs.

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## STATEMENT OF PAUL IRON CLOUD, PRESIDENT, OGLALA SIOUX TRIBE

The Oglala Sioux Tribe has a number of concerns about the Administration's proposed FY 1989 budgets for the Indian Health Service and the Bureau of Indian Affairs. While the budget proposals to not appear as onerous as some past Reagan Administration proposals, they nevertheless contain some very disturbing aspects.

### BUREAU OF INDIAN AFFAIRS BUDGET

Of particular concern is that the proposed BIA budget cuts -- $32 million in Operation of Indian Programs and $45 million overall -- are generally targeted at tribe/agency operations. A total of $9.2 million would be taken from tribe/agency operations in Tribal Services, Economic Development, Natural Resource Development and Trust Services. In addition, road maintenance would be taken off the Indian Priority System. This is an activity which the Oglala Sioux Tribe gave a high priority last year, spending $528,000 on road maintenance. We believe that proposals which reduce tribe/agency funding -- the funding which goes directly to serve tribal members -- and which cut appropriations for indirect costs associated with P.L. 93-638 contracts, are contrary to the goals of tribal self-determination, of providing better services to our tribal members and of strengthened tribal government. Proposals which cut monies for Indian people living on reservations while increasing funding for Area and Headquarters BIA operations are not consistent with the Reagan Administration's stated Indian policy.

Education. The Administration has proposed to reduce funding for the tribal colleges by $750,000 from their FY 1988 level. In addition, no money is proposed for the tribal college endowment fund. This compares with $500,000 appropriated in FY 1988 for the endowment. Furthermore, no construction funds are requested for the tribal colleges. Not only have the tribal colleges proven themselves, but they are growing. The Administration's tribal college proposal is perhaps the most shortsighted one in the entire

BIA budget. The Oglala Lakota College, and tribal colleges nationally, have made an enormous difference in terms of Indian access to post-secondary education. Colleges are also directly responsible for thousands of Indian people going back to school and earning Graduate Equivalency Diplomas. Eighty-four percent of tribal college graduates are either employed or pursuing additional higher education, an amazing accomplishment given the unemployment rate of up to 85% on many reservations, including the Pine Ridge Reservation. We support the recommendations of the American Indian Higher Education Consortium of $14.6 million for the Title I tribal colleges, $5 million for an endowment and $10.3 million for construction. When appropriating money for the tribal colleges, we urge you to keep in mind that two new tribal colleges -- Fond du Lac Community College in Minnesota and Bay Mills Community College in Michigan -- will be joining the tribal college system in FY 1989. With regard to construction for the colleges, the Oglala Lakota College has, pursuant to P.L. 98-192 (Tribally Controlled Community Colleges Act Amendments), conducted a construction cost analysis and design study. Matching funds are required for construction, and the college has raised $400,000 through private sources. This $400,000 is contingent, however, upon the college obtaining an additional $1,440,000. Thus, we request that in the construction money for the tribal colleges, that $1.5 million be earmarked for construction at Oglala Lakota College.

The Administration has proposed a $50,000 increase for the Johnson O'Malley Program, but this does not come close to meeting the $2.6 million needed to keep pace with the 13% increase in the number of students served by the program. We urge Congress to adequately fund this program and to appropriate funds which keep pace with JOM program participation.

We ask that the Appropriations Committees adopt language which will provide for forward funding of BIA education programs. Most education programs administered through the Department of Education are forward funded, but BIA education programs are not. It is extremely difficult to manage programs when we do not even know until we are into the school year what our budget will be.

A high priority for the Oglala Sioux Tribe is construction of a high school at Pine Ridge. The Appropriations Committees, the House Interior and Senate Indian Committees are well aware of this need. In addition, we have the strong support of our Congressional delegation for construction of the high school. The Office of Construction Management will soon issue its priority list for school construction, and we believe that we should be at the top of the list. We will obviously be in communication with the appropriate Congressional committees when the new priority list is issued, hopefully in April or May so that FY 1989 monies can be made available.

As our final comment on education, we commend to you the testimony of Randy Plume, Chairman of the Oglala Sioux Tribal Board of Education, regarding the need for funding for a reservation-wide tribal department of education. This is a high priority for the Oglala Sioux Tribe, and Mr. Plume's testimony details the reasons for the establishment of such a department.

Law Enforcement. The Bureau proposes to cut the law enforcement budget by approximately $2 million, with the reduction coming from tribe/agency programs. At the same time, the Bureau is asking for 2 additional FTEs for law enforcement personnel at the Area level. As mentioned earlier, reducing tribe/agency funding while increasing area or headquarters funding is not the proper direction for the BIA budget. We would also like to bring to your attention that the Bureau has taken $127,000 out of the Oglala Sioux Tribe's law enforcement contract to monitor the contract. This is in violation of Section 106(h) of the Indian Self-Determination and Education Assistance Act, which requires that funds for contracts shall not be less than the money the Secretary would have provided for direct operation of the program. We are also concerned that the

Bureau has offered to provide $65,000 additional dollars to fund criminal investigation on our Reservation if, but only if, the Tribe retrocedes criminal investigation to the Bureau. This also violates section 106(h) and demonstrates once again the Bureau's resistance to the development of true self-government on our Reservation. We agree with the Senate Select Committee on Indian Affairs' proposal that the Bureau identify the amount of contract monitoring costs associated with each P.L. 93-638 contract and that these costs be funded under the Bureau's General Administration activity.

Contract Support. The Administration is proposing $46.2 million for contract support. This compares with $47.7 million in FY 1988. There is absolutely no justification for a reduction in contract support funds, and is, in fact, no justification for the Administration not to ask for an increase in contract support monies. The biggest impediment to tribal contracting of BIA and IHS programs is an insufficient amount of indirect cost monies. We recommend that $58 million be appropriated for indirect costs. This is the same amount recommended by the Senate Select Committee on Indian Affairs, and it represents a more realistic estimate of need than does the Administration's proposal. We object to the BIA's proposal that it will "discontinue payment of contract support on funds which 'pass through' the Bureau from the Department of Education." The programs which have "pass through" funds are Chapter 1 and education for handicapped children. The Bureau is required to pay indirect costs associated with these contracts under P.L. 93-638 just as it is under contracts for other programs which the Bureau administers for the benefit of Indians. If contract support funds cannot be used for this purpose, then program funds must be used, thus reducing the level of educational services below that which could be provided if the Bureau operated the program. This is directly in violation of section 106(h) of P.L. 93-638. Our position on this matter is based on the Bureau's own interpretation of the law as stated in Chapter 6 on "Contract Funds - Administrative or Indirect Costs" in the BIA Procedural Guidelines on 25 CFR Part 271, April 1977.

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## STATEMENT OF GEORGIA C. GEORGE, CHAIRPERSON, THE SUQUAMISH TRIBE

The Suquamish Indian Tribe requests your support for tribal governments in recommendations on fiscal year 1989 appropriations for the Bureau of Indian Affairs (BIA) and Indian Health Service (IHS). As we have outlined in our enclosed testimony of March 2, 1988 before the House Interior and Related Agencies Appropriations Subcommittee, the Suquamish Tribe requests the Congress to direct, through the appropriations process, that resources channeled through the BIA/IHS for direct tribal management and service delivery be restored, expanded, and protected. If the bureaucracies are to exist for our benefit, then it is a most logical assumption that our capacity to govern, manage, develop, and deliver services is given highest priority.

The Suquamish Tribe requests your support for the following specific appropriations issues:

* **Earmark $50,000 from the BIA Indian Arts and Crafts Board Account for Suquamish Tribal Museum Operations.**

The Suquamish Tribal Museum holdings include artifacts, historical documents, photographs, and other material representing the history and culture of Suquamish and other Puget Sound Salish Tribes. With a stable financial support base, the museum would be able to maintain staff, expand artifact research and collection activities, and offer cultural awareness education services to the Pacific Northwest.

Over 12,000 visitors tour the Suquamish museum annually. There are simply not enough patron contributions to support operational costs. The BIA Indian Arts and Crafts Board currently provides direct financial support for three tribal museums in the Plains States. No tribal museum support is offered for the Northwest.

*** Restore Tribal Appropriations in the BIA Wildlife and Parks Account to FY88 Level & Remove Funds from Tribe/ Agency Pool**

The administration has proposed sizeable reductions in tribal fisheries management and hatcheries programs. These programs are essential for tribes to maintain and expand this significant natural resource. We request:

- restoration of hatcheries rehabilitation funds in the BIA Construction account to the FY88 level of $1.5 million
- restoration of the Timber-Fish-Wildlife program to the FY88 level of $2 million
- restoration of the $443,000 reduction to the US-Canada Pacific Salmon Treaty appropriations to the FY88 level of $2.443 million
- restoration of the hatcheries cyclical maintenance account to the FY88 level

In particular, the Suquamish Tribal hatcheries, seapens, and facilities need repair and renovation. In FY88, the Suquamish Tribe received $90,000 from the hatcheries rehabilitation fund to address critical maintenance, replacement, and renovation requirements for

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|---|---|---|---|
| Grovers Creek Hatchery: | $100,500, | Cowling Creek Hatchery: | $19,750 |
| Agate Pass Seapens: | $23,450, | Satellite Incubation Facilities: | $51,000 |
| **TOTAL** | | | **$194,700** |

Restoration of the $1.5 million hatcheries rehabilitation account to the FY88 level would directly assist Tribes, nationwide.

*** Provide adequate Contract Support Funds and prohibit BIA from negotiating indirect cost rates**

Once again, the BIA has proposed reductions in Contract Support Funds for FY89 while explaining to tribal governments in FY88 that there is an eleven percent shortfall. The Suquamish Tribe has experienced annual management difficulties compensating for inadequate indirect costs. I urge appropriation of Contract Support Funds to one hundred percent of BIA estimated need with the proviso that any FY89 shortfall will be covered by a BIA reprogramming of its own administrative funds. The BIA Contract Support Fund charade will only stop when the administration understands consequences to under-estimation.

In conclusion, the Suquamish Tribe requests that Congress give tribal governments priority consideration in determining appropriation levels for the BIA and IHS.

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## STATEMENT OF DR. DOUGLAS K. EIKEN, PRESIDENT, NATIONAL ASSOCIATION OF STATE OUTDOOR RECREATION LIAISON OFFICERS

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to testify before you as President of the National Association of State Outdoor Recreation Liaison Officers (NASORLO). I appear here to support efforts to increase funding for the states grants portion of the Land and Water Conservation Fund. The program provides the means to maintain a unique state/federal partnership which has worked extremely well over the years and which has attempted to provide a significant and essential nationwide system of park and recreational areas.

Mr. Chairman, NASORLO wishes to thank you and members of this Subcommittee for agreeing to include stateside funding for the Land and Water Conservation Fund (L & WCF) in last year's budget. These funds have been committed by the states to high priority park and recreation projects. We are here to request your support for continuation of the states grants funding for the FY 89 budget. We cite the following reasons for our urging that appropriations to this fund need to be continued:

1) Over the past nine years we have watched the reduction of the stateside of the Land and Water Conservation Fund from $369 million to last year's $16.6 million. The administration claims that this has been done in the name of deficit reduction and budget balancing. Unfortunately, these actions are having the detrimental effect of decimating the nation's outdoor recreation and conservation programs and is creating a crisis between the dual pressures of increased outdoor recreation demands and reduced acquisition, development and renovation programs.

2) Recently, much attention has been given to the need for increases in the federal outdoor recreation estate, in particular to address the impacts of visitors on the capacity of the National Park System. However, insufficient attention has been given to the significant impact that state and local governments make in providing areas and facilities to meet these needs and their complementary efforts to protect and preserve this Nation's natural heritage. In a nationwide system of parks, state and local governments supplement and assist in the national effort to preserve and protect areas and provide outdoor recreation opportunities. The Land and Water Conservation Fund program has proven to be an effective and efficient alternative to federal acquisition and development and seems to be by far the most effective method for stimulating important local and state efforts.

3) Another unique aspect of the Land and Water Conservation Fund is that properties acquired and developed are protected in perpetuity for public enjoyment and use. This protection and perpetuity is a unique feature of the Land and Water Conservation Fund. Land acquired or developed through the use of the Land and Water Conservation Fund is maintained forever in the outdoor recreation estate, just as though it would have been if acquired and developed by the federal government.

4) Requests for Land and Water Fund assistance within the states far exceed the available funds. In the five years prior to the FY 88 Land and Water appropriation, the range of annual requests for funds varied from $492 million to $346 million. The dollars made available to states by federal appropriations to meet these needs ranged from a maximum of $72.9 million in FY 84 to only $16.6 million in FY 88.

5) The administration of the Land and Water Conservation Fund by state agencies has become increasingly efficient with the recipients continuing to maintain high obligation rates indicating a strong latent demand for fund assistance.

6) The 50 percent matching requirement of the program assures, at least, a doubling of the investment from the fund.

7) During the past 20 years, the Land and Water Conservation Fund program has provided matching funds for nearly 30,000 individual projects involving land acquisition and recreation development amounting to an investment of over $6 billion.

8) There continues to be a growing realization of the need to promote recreation and tourism opportunities throughout the Nation, as a strategy of economic development. NASORLO supports this effort as we have seen and experienced the complementary relationship between the development of outdoor recreation resources, economic development and tourism.

9) Much attention has been devoted to the work of various conservation groups, who have been credited with significant

conservation efforts throughout the country. What many people do not understand is that the Land and Water Conservation Fund, through grants and its planning requirements, provides much of the data used by these groups in their programs and often has been used as a match for funding land protection. The continued reduction of L & WCF will result in the elimination of this important aspect of the states' technical and financial support for these efforts.

10) The states grants program represents an effective approach for providing recreation facilities close to the country's population centers to meet the needs documented by testimony before the President's Commission on Americans Outdoors. Nearly three quarters of the fund assistance received by the states is passed directly through to local communities, thereby providing close to home recreational opportunities.

Although NASORLO is very supportive of the existing Land and Water Conservation Fund and sees the need for an expansion of the states grants funding, we are also aware of various efforts to develop new trust fund concepts. These trust fund concepts, if they can provide a consistent and dependable source of revenue for outdoor recreation grants, have the full support of the National Association of State Outdoor Recreation Liaison Officers.

We believe that the final design of any new initiative will not differ greatly from the existing Land and Water Conservation Fund program. We believe this for several reasons: First is the excellent legacy of the Land and Water Conservation Fund over the years in seeking to establish a nationwide system of parks and meeting outdoor recreation needs. Secondly, the fund infrastructure is in place through the administrative network set up by the existing Land and Water Conservation Fund program. Therefore, no new administrative efforts are required to efficiently implement a revised trust fund program.

NASORLO urges your Committee to take the first step in making a positive recognition of the need for increased states grants funding by continuing the appropriation for the stateside of the Land and Water Conservation Fund until the concept of a revised L & WCF Trust can be reviewed and acted on by the Congress. We understand that there are serious budget restraints to contend with, but we believe a new trust fund as proposed by the President's Commission will allow this Committee to restore funding to levels provided in 1979.

In summary, Mr. Chairman and Members of the Subcommittee, the National Association of State Outdoor Recreation Liaison Officers urges you to: 1) support the funding of the states grants portion of the Land and Water Conservation Fund program and, 2) to support any other initiatives that might be presented to provide a stable, consistent level of funding to the states distribution for outdoor recreation projects with a mechanism built in to provide for the maximum flexibility in the distribution of these funds.

Thank you, Mr. Chairman, for the opportunity of being able to testify before you today and for your continued support for the Land and Water Conservation Fund program.

## STATEMENT OF CYNTHIA LENHART, WILDLIFE PROGRAMS, NATIONAL AUDUBON SOCIETY

The National Audubon Society wishes to respectfully offer the following recommendations to the Subcommittee regarding the FY 1989 budgets of the Fish and Wildlife Service, Forest Service, and Bureau of Land Management. This list represents only the highest priority concerns of the Society's members for federal wildlife management program funding, and as such is not all-inclusive of add-ons that we support. In particular, we recommend that the Subcommittee:

- Reject the Administration's proposed funding level for the Endangered Species Act (which represents a 17 percent reduction from last year's level), and at minimum provide an additional $2 million for endangered species recovery projects and $6 million for Section 6 grants.

- Provide, at minimum, an additional $600,000 for Fish and Wildlife Service implementation of the **Food Security Act of 1985**, needed to maintain the FY 1988 level of funding for restoration of wetlands on Farmers Home Administration property.

- Restore cuts in funding for **Alaska refuge operations** [$500,000]; **refuge water rights** [$142,000]; the **arctic goose education program** [$460,000]; and the **refuge challenge grant program** [$200,000].

- Restore $1 million for **nongame research and management**, so that the Service may fully develop its comprehensive migratory bird plan and continue its important nongame research projects.

- Reject the Administration's proposed funding level for the **Land and Water Conservation Fund**. The following is a list of the Society's top priority refuge projects. In addition to (not in lieu of) this list, we recommend a $30 million appropriation from LWCF for implementation of the **North American Waterfowl Management Plan**.

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| Animas Mountains, NM | $ 5,000,000 | Attwater Prairie Chicken, TX | $ 3,000,000 |
| Crocodile Lake, FL | 1,000,000 | Florida Panther, FL | 1,000,000 |
| Hawaiian Forest Birds, HI | 1,000,000 | Klamath Forest, OR | 3,500,000 |
| Lower Rio Grande, TX | 12,000,000 | Lower Suwannee, FL | 3,700,000 |
| Matagorda, TX | 5,400,000 | National Key Deer, FL | 5,000,000 |
| Sacramento River, CA | 3,000,000 | San Francisco Bay, CA | 3,500,000 |
| San Joaquin River, CA | 5,000,000 | San Pablo Bay, CA | 4,000,000 |
| Steigerwald Lake, WA | 2,000,000 | | |

- Add a total of $14 million to the Forest Service **wildlife management program**, as follows:
  - $2.5 million for **endangered species** recovery plan implementation in national forests, which would benefit -- among others -- the grizzly bear, red-cockaded woodpecker, and sensitive plants;
  - $1 million for management of waterfowl habitat on the over 12 million acres of Forest Service wetlands, to help implement the **North American Waterfowl Management Plan**;
  - $500,000 to support recovery of the **Eastern timber wolf** in national forests of Minnesota and Wisconsin;
  - $2 million to support the new **"Rise to the Future"** fisheries initiative, designed to improve habitat and generate public involvement in fisheries management on forest lands;
  - $3 million to support restoration and management of vital **salmon and steelhead habitat** in national forests in the Great Lakes region, the Pacific Northwest, and Alaska;
  - $5 million for the challenge **cost-share program**, of which at least $1 million should be dedicated to threatened and endangered species.

- Add a total of $10.8 million to the Bureau of Land Management **wildlife management program**, as follows:
  - $2 million for general **habitat management plan** implementation;
  - $3 million for **fisheries and aquatic habitat** improvement, to increase the productivity of 1500 miles of anadromous fish streams on BLM lands in Oregon, Idaho, California, and Alaska;
  - $1 million to support inventory, monitoring, and recovery plan implementation for **threatened and endangered species** and rare plants on BLM lands;
  - $1.5 million for **riparian habitat management** -- to support, among other projects, improvement of 12,600 miles of stream habitat; inventory of riparian zones and wetlands in Alaska;

and monitoring of the effects of resource development on BLM riparian areas;

- $500,000 for spotted owl, $300,000 for desert tortoise, and $500,000 for desert bighorn sheep research and management;
- $2 million for the challenge grant program.

The National Audubon Society recognizes the enormous portent of the deficit and the fiscal constraints under which this subcommittee must operate. We have, therefore, applied stringent criteria to our review of the Administration's budget, but must conclude that many wildlife programs are proposed for inequitable and unwarranted budget reductions. The programs and resources that we are highlighting in this letter are ones that we believe to be in jeopardy.

We sincerely appreciate this subcommittee's continued commitment to funding federal wildlife and land acquisition programs, by consistently appropriating levels higher than those requested by the Administration -- and trust that you will do so again this year.

Thank you for the opportunity to present our views.

## STATEMENT OF LONNIE L. WILLIAMSON, WILDLIFE MANAGEMENT INSTITUTE

The Administration's FY 1989 budget for the Forest Service's fish and wildlife program is $45.4 million. We recommend that the committee add $24 million to that request, making a total of $69.4 million. The addition includes $5 million for threatened and endangered species, $1 million for participation in the North American Waterfowl Management Plan, $500,000 for wolf management in Region 9 (Minnesota), $2 million for implementing a new fisheries initiative (Rise to the Future), $6 million for anadromous fish, $5 million for additional challenge grants, $2.5 million for fish and wildlife work needed to support the Tongass timber program, and $2 million for mitigating additional timber sales.

Again, we thank the committee for its support and foresight in establishing the Challenge Cost-Share program. The Forest Service is making tremendous strides with this effort. We hope that you can encourage the Bureau of Land Management to do likewise by increasing its Cost-Share allowance significantly in 1989.

The Forest Service's range management program is as important to fish and wildlife as it is to livestock, because poorly managed range cannot provide sufficient forage for domestic or wild animals. Neither can it protect streams from siltation and other pollutants. This program needs your immediate attention. We recommend that the Administration's $26.3 million proposal (64% of what is needed) be increased to $41.3 million so that the range program can proceed in concert with other forest resource programs and benefit livestock, fish, wildlife and recreation interests.

Range programs in the Forest Service and BLM have suffered under the interminable squabbling among permittees, environmentalists and conservationists. Congress could eliminate this devisive palaver by providing adequate funds to implement the forest plans which are designed to restore range resources and give all interests as much as possible.

The Bureau of Land Management's fish and wildlife program continues to languish in the sub-basement of succeeding Congresses and Administrations. It's amazing that the agency is able to attract and retain the excellent, professional wildlife and fish managers that it does. The Challenge Cost-Share program has helped this "crippled" group, but last year was a disappointment when the funding recommended by this committee was lost in conference with the House.

The President's request for BLM fish and wildlife in FY 1989 is $14.8 million, $3.4 million less than present. We strongly urge the committee to add $11 million to the President's proposal, for a total of $25.8 million in FY 1989. This addition includes $3.2 million for threatened and endangered species, $3.3 million for fisheries, $2.6 million for wildlife and $3.5 million for Challenge Cost-Share.

The U.S. Fish and Wildlife Service budget for FY 1989 has serious shortcomings. We believe that the following additions would help alleviate those problems.

The Administration's proposal would eliminate funding under Section 6 of the Endangered Species Act for state programs. We recommend that the committee provide $6 million for Section 6 endangered species efforts by the states.

The President's budget requests $31.9 million from the Migratory Bird Conservation Fund to support the North American Waterfowl Management Plan. That plan's implementation requires $61.9 in FY 1989. We recommend that the MBCF (duck stamp and firearm import receipts) be used for its normal purpose of acquiring refuge lands. We suggest that the committee allocate $62 million from the Land and Water Conservation Fund specifically for the North American Waterfowl Management Plan in FY 1989. We also recommend that the remaining $2.6 million authorized by the Wetland Loan Act be appropriated for general refuge acquisition.

The Institute requests that $5 million be provided for implementing the Fish and Wildlife Conservation Act of 1980, a program designed to help states give much-needed attention to nongame species. We also recommend that an additional $1 million be given the Service to implement its nongame migratory bird plan.

The Service's research program is vital to wildlife nationwide. It is not up to par and needs help immediately. Researchers in the Service deserve our strongest support to strengthen waterfowl research. We ask that $200,000 be added so the agency can evaluate and coordinate its waterfowl program with appropriate conservation provisions of the 1985 Farm Act. The swampbuster and conservation compliance provisions of that Act, if properly administered by USDA with consultation from the Service, can protect significant amounts of waterfowl habitat at modest cost.

The Cooperative Fish and Wildlife Research Units must have an additional $1 million above the President's request to function anywhere near desirable levels. We recommend that these funds be provided, and that no more units be created until the budget reaches $6.8 million and all units are staffed.

We urge the committee to restore $565,000 to the Service's research budget so that publication of the Wildlife Review and Fishery Review may continue. The research listings and abstracts in those annual volumes are important to scientists and managers alike.

Oil and gas development on the Arctic National Wildlife Refuge is a distinct possibility. We, therefore, urge the committee to provide the Service additional research funds to collect data that would help minimize damage to the area's fish and wildlife populations. Currently, the Service is not researching ways to reduce the fish and wildlife effects of contaminants from oil and gas production. We recommend that the committee supply $500,000 specifically for that purpose. Also, we urge that $200,000 be appropriated to conduct needed research on how to control the effect of oil and gas development on the refuge's muskoxen, animals that reside on the area year around and which would be most affected.

Rehabilitation of the National Wildlife Refuge System should continue. We recommend that the Committee provide $14.3 million for the program, the same as in FY 1988. We also recommend that refuge operations and maintenance be restored to the 1988 level of $116.3 million.

The payment in lieu of taxes to counties issue regarding refuges is becoming critical. A number of midcontinent counties refuse to approve further land acquisition by the Service until full payment of in-lieu taxes are paid. Current refuge receipts pay only about half of the tax bill. We urge the committee to add funds to this account so that 100 percent of in-lieu taxes are paid, and Service relations with county governments are improved.

The Institute supports funding for the National Fish and Wildlife Foundation at the full $5 million level. The Foundation is providing tremendous support for national fish and wildlife priorities by obtaining private donations that greatly augment federal investments.

We appreciate the committee's consideration of our views on FY 1989 appropriations.

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## STATEMENT OF THE AMERICAN PUBLIC POWER ASSOCIATION

The American Public Power Association and its member utilities have actively supported the development of fuel cells for electric generation for more than a decade. APPA is the national service organization of more than 1,750 local publicly owned electric utilities nationwide, which supply electricity to more than 35 million Americans and generate about 13 percent of the electricity sold in the United States.

The Department of Energy's Fiscal Year 1989 budget request for fuel cell R&D -- an 80 percent cut from FY88 appropriations -- undercuts national efforts to achieve energy efficiency, self-sufficiency, and low environmental impact. It is out of phase with current trends in electric generation toward smaller capacity additions and shorter lead-time technologies. It harms prospects for early commercialization by ignoring the needs of developing manufacturers for sustained, dependable support. It risks the United States' technical leadership in the face of growing -- and increasingly successful -- foreign competitiveness. And it ignores the critical role that the federal government must play to bring fuel cell options to fruition.

The Importance of Fuel Cells as an Option for Local Electrical Generation. Dramatic changes are occurring in the bulk power market, including: more competition among utilities and between utilities and "third party" entrepreneurs; more retail customers becoming energy self-sufficient through cogeneration; proposals for industry deregulation; continuing limits to transmission access; possible domination of some markets by large firms; tighter environment, health, and safety controls for power generation coupled with new restrictions on location of power plants; and long lead times and public skepticism about large-scale conventional power production facilities.

A new approach to community and environmental standards is emerging, reflecting community desires for clean and safe technologies. This approach emphasizes the concept of least-cost energy services and wise resource use. It calls for better system reliability and less risk to the community's financial resources. It demonstrates a fundamentally new approach to power generation that is not subject to the inherent efficiency limits of conventional generation, nor accompanied by the land, noise, water, and air impacts of large conventional powerplants.

Fuel cells offer unique benefits in light of these trends. Fuel cells are environmentally clean, quiet, siteable in urban areas, not dependent on long-distance transmission networks, and can be constructed in months rather than years. Their modular design increases reliability and lessens risk by allowing "building block" expansion and shorter planning horizons. Electrical efficiencies are high and may get higher. And fuel cells are well-suited for combined heat and power production.

Lessons Learned from Recent Public Power Efforts. Over the past year and a half, APPA and many of its member utilities undertook an active effort to promote the demonstration of 11-MW capacity phosphoric acid fuel cell (PAFC) generating plant. On March 3, 1988, those efforts were suspended, and their lessons offer a pointed commentary on DOE's drastic proposed cuts in the fuel cell R&D budget.

In late 1986, APPA joined an effort spearheaded by the Electric Power Research Institute (EPRI) to demonstrate three 11-MW PAFC units at a cost of approximately $40 million each. APPA's Board of Directors endorsed the EPRI initiative, and the city utility of Palo Alto, California, agreed to host one of the demonstration units, contributing $15 million and a site. The remaining funding was to be committed by other APPA members and EPRI.

Unfortunately, other sectors of the electric utility industry did not commit to fund the additional two demonstration units. By the end of summer, 1987, it was clear an alternative approach was necessary if a demonstration program were to move forward.

APPA and its interested members assumed leadership of this second effort. An alternative proposal for an initial 11-MW unit linked with contingency orders for early "market entry" units was proposed to the manufacturer. Within a period of weeks, firm interest in six "market entry" units was secured from APPA members around the country. Prospects for more orders beyond this level also looked excellent. Two factors, however, forced the manufacturer to reject the risk of this alternate proposal: the absence of a full-scale demonstration proving the integration of all of the powerplant's major subsystems; and the large investments in mass production facilities necessary to reduce costs to acceptable levels for the "market entry" units.

The manufacturer then offered a counterproposal for a single 10-MW demonstration, using much on-hand equipment from ongoing development and testing work. But the price tag zoomed to an estimated $70 million, including site acquisition, spare parts, and the eventual upgrade to "commercial" operation. This cost was too high for Palo Alto and other participants to shoulder, and the current demonstration effort was suspended.

The lessons are these: 1) collaborative arrangements between public and private sectors are essential to share the costs and risks of large-scale demonstrations of energy technologies; 2) federal participation in funding such demonstrations is vital; 3) market development will not occur until the technical risk is lessened through a successful demonstration of the technology; 4) as long as fuel cells are hand-built Maseratis and not assembly-line Fords, costs will remain high and unacceptable; and 5) continuing R&D support will improve the basic technology, leading to higher efficiencies and lower eventual costs.

**Research, Development, and Demonstration Needs.** For the reasons above, DOE's request to cut its fuel cell R&D budget by 80 percent is counterproductive. More money -- not less -- is necessary for advanced technology research and development. And much more money -- not none -- is necessary for full-scale demonstration. Continuing R&D efforts are needed for all three leading approaches to multimegawatt potential fuel cells: phosphoric acid (PAFC), molten carbonate (MCFC), and solid oxide (SOFC). In addition, a strong commitment to basic research in advanced concepts needs to be secured. The following comments pertain to utility-scale fuel cells.

For PAFC, DOE's R&D program should focus on five areas: 1) fixed vs. variable cost tradeoffs; 2) smaller-scale system design; 3) manufacturing technology; 4) verification of the more advanced "configuration B" fuel cell stack; and 5) demonstration support for multimegawatt units.

Solid oxide and molten carbonate fuel cells are receiving attention from the utility industry. The Tennessee Valley Authority is supporting solid oxide through a 3-kW development unit. Pacific Gas and Electric is supporting a 5-kW molten carbonate unit, and EPRI is focusing its advanced fuel cell support on MCFC.

Both advanced technologies required continued DOE support. Though each offers advantages and technical challenges, it is clear that the electric utility industry does not yet have sufficient information to suggest which alternative is superior. The lack of a catalyst and solid state design recommend solid oxide, but problems in fabrication and perhaps lower potential efficiencies than MCFC may be drawbacks. MCFC may also be more suitable as a baseload option with higher temperature heat recovery.

**The Prospective Loss of U.S. Technological Leadership.** The United States still appears to have a lead in PAFC technology measured in years (a lead, however, which is crucially dependent on the needed demonstration phase). However, material presented to the Fuel Cell Users Group in Atlanta, Georgia, on March 30, 1988, suggests the Japanese may have substantially narrowed the gap or pulled even in some aspects of MCFC technology.

Such erosion in U.S. technological leadership is an alarming result of inadequate funding. The Japanese "Moonlight" Project, sponsored by the New Energy Development Organization, has made large strides in all fuel cell types. Nearly a dozen Japanese manufacturers now have active development and demonstration programs. As little as two years ago, Japanese efforts were described as "five to ten" years behind those of U.S. manufacturers. More recent assessments narrow those gaps across the board. Italy and Japan plan megawatt-scale PAFC demonstrations. In the U.S., only the planned Westinghouse PAFC demonstration at its Waltz Mill facility appears active at this scale.

The decision to scale back fuel cell R&D in the United States now could mean relinquishing technological leadership. Recent marketing efforts by foreign manufacturers suggest that they are targeting precisely the large potential U.S. market.

**When Public Power Buys, Will the Label Say "Made in the U.S.A."?** APPA and its members will remain active in promoting fuel cell commercialization. Near-term efforts include completing APPA's own assessment of the public power market for fuel cells and completing a "Notice of Market Opportunity" (NOMO) for circulation to all potential suppliers. These parties include foreign, as well as domestic, suppliers.

APPA and its members would obviously prefer to secure fuel cells from domestic manufacturers. Yet technological innovation without the commitment and funding to complete the commercialization cycle may ultimately mean that the fuel cells public power acquires do not say "Made in the U.S.A."

We ask the committee's support for full and expanded funding for fuel cell research, development, and demonstration programs.

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## STATEMENT OF DR. L.R. LAWRENCE, JR., PRESIDENT, BOB LAWRENCE & ASSOCIATES

Mr. Chairman and Members of the Subcommittee. I am Dr. L. R. Lawrence, Jr., President of Bob Lawrence & Associates with offices in Albany, New York and Alexandria, Virginia. I appreciate the opportunity to testify before you today on the subject of a uniquely successful R&D program; The Stirling Engine program. As many of you are aware, The Stirling Engine program has now accomplished all the technical objectives of the Automotive Propulsion R&D Act of the late 1970's. The products and applications of various Stirling engine designs now include Generators, Gas Heat Pumps, Solid Fueled water pumps and generators, submarine propulsion systems and solar powered engines. The latest example of the success of this program is an Air Force truck which has gone 15,000 miles without engine maintenance. It runs on any liquid fuel poured into the tank including gasoline, diesel, and JP-4 jet fuel. The truck gets better gas mileage by 25% than it did with its original engine, and it has plenty of pickup. It recently demonstrated emissions below the standards for the mid 1990's. A MOD II engine is now beginning testing in a postal service van.

For FY89, Deere & Company and MTI proposed to initiate a three year program of Stirling engine upgrading, testing, and demonstration. The team offered to cost share 20% over the three years. The government requirement would have been $8, 7, and 5M; Industry share would have been $1, 2, and 2M over the three year duration. The purpose of the original program was to upgrade the present engine design, build 50-60 engines, and put them in the hands of eventual buyers and users. At the end of this three year period, if all went well, Deere would have implemented manufacturing and market introduction without further government involvement.

The above was the originally proposed program, testified to by Deere and MTI before both Authorizing and Appropriating Subcomittees. In appreciation of the stringent fiscal situation for FY89, the now suggested program is $3M, with $1M industry cost share, to allow the team time to identify more industrial participation over the next year while completing meaningful technology advancements.

As we speak, Mr. Chairman,16% of the World's oil supply passes through the Straits of Hormuz, that small channel that connects the Arabian Sea and the Indian Ocean. At the same time, oil imports to the United States are now costing $42 Billion per year, representing 34.8% of our total need. Yet these major national security and balance of trade items are dramatically lacking from the rationale we see for the DOE/Conservation Budget justification.

The reason this program was begun had to do with national security and standard of living. A JPL study in the early 1970's concluded that the optimum engine of the future had to be highly efficient, environmentally benign, and multi-fuel capable, as well as having all the needed characteristics of safety, cost, reliablity, durability, and ease of operation that the public had become accustomed to in engines. The JPL study concluded that Stirling technology was one possible candidate.

The Automotive Stirling Engine program, managed by MTI, has been remarkable in many ways. The technical advances made have exceeded what anyone thought possible. The program has stayed on schedule, within budget, without overruns throughout its duration. The potential for military, space, and civilian product spin-offs is large and substantial.

As the program has achieved the legislative technical goals, the Congress has asked for user and manufacturer involvement, and of course, cost sharing. This has taken longer than anyone (including the contractor) wanted, but this is not unusual when attempting to introduce new and revolutionary technologies. It has finally happened as can be seen by this year's testimony by Deere & Company (formerly John Deere), one of the world's largest engine manufacturers. Potential users such as the Air Force and the Post Office are now implementing first vehicle testing with MOD I and MOD II Stirling engines. Deere has carried out extensive manufacturing studies including design refinements to be applied to future test engines.

Users such as the Air Force and the Post Office are becoming more and more enthusiastic about the engines as the testing is showing the multi-fuel capability, high efficiency, and ease of operation. The present Air Force test sequence is exceeding reliability goals by better than 15 percentage points.

We are, right now, at a critical juncture. The option of having this technology, being able to use it, and the maintenance of national leadership in this area is dependent on keeping the technical team intact while the preproduction and market enhancement processes begin.

**The program funded strictly by the government to evolve the technology has ended.** A purely private sector commercialization of the technology is foreseable, but only if an intermediate, cost-shared, technology demonstration and enhancement program is put into place. This is mandatory if the nation is to reap any of the projected program benefits. Without this transition program, the team will be disbanded, the effort will have been wasted, and the nation will be without this option.

If we can spend over $365M per year to protect oil tankers through the Straits of Hormuz, surely we can spend $3M (plus $1M of private funds) over the next year to fund a technology which promises to lessen Arab Oil importance, lower oil imports, enhance our national security, and enhance our standard of living.

If successful, the government stands to receive about $250M in royalty payments. The purpose of the $3M, then, is to buy a little time for the small company which accomplished this feat to achieve a firm relationship with an engine manufacturer, while further advancing the state of the art of the engines. Without your support, this unique team will be disbanded. This is an opportunity for the government to protect its investment and get the technology out into the marketplace so that the national benefits and the $250M dollar payback to the government can begin. The flexibility and security offered by this engine option is something we cannot afford to lose, and without this cost-shared transition program, we will surely lose it. I strongly encourage you to support this uniquely successful technology and program.

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## STATEMENT OF THE FUND FOR ANIMALS INC.

On behalf of over 250,000 of our members across the United States the Fund for Animals appreciates this opportunity to present our views on The Bureau of Land Management's FY 1989 Budget request for the Wild Horse and Burro Program.

The Fund for Animals is a non-profit organization, and has been involved from the beginning in both the roundup and adoption of wild horses and burros. Besides the 577 wild burros we rescued from the Grand Canyon, we found homes by adoption for 6,000 - 7,000 burros from China Lake Weapons Center in California, Bandelier National Park, New Mexico and from Death Valley National Monument, California. On our Black Beauty Ranch in Texas we have several hundred wild horses all of which the Fund has rescued. We have 14 adoption centers across the country and have conducted our programs at a fraction of what it would have cost the BLM. We speak with practical experience in this area.

The Bureau of Land Management's FY 1989 proposed budget request of more than $7.2m below the figure for FY 1988 is based on unrealistic factors. The Bureau intends to remove 15,000 wild horses and burros from public lands in Fy 1989. They intend to dispose of 12,500 animals through sales at public auction. At present they do not have this sale authority. By including sale authority as a requirement in their budget request they have reduced holding costs in this accounting process, and to offset the cost of roundups estimate receipts of $3m from wild horses sold at public auction. These savings are non-existant. It would require legislation for sale authority to put this budget in place. In 1983 legislation to include sale authority expired before reaching the Senate floor and was never considered by the House of Representatives. It was opposed by almost every humane organization actively involved in the welfare of wild horses and burros. It was highly controversial then, as it is now. The BLM have returned to sale authority again, without solving their problems as to how to improve the existing situation.

From FY 1984 through FY 1988 Congress has appropriated $77.3m for this program. This has empowered the removal (with millions of dollars for helicopter allocations) of about 59,000 animals. The BLM continues to claim 40,000 wild horses and burros will remain after the FY 1988 removals are completed. The Bureau's figures are based on an annual increase of about 16%. The National Academy of Science's Committee on Wild Free-Roaming Horses and Burros, funded by Congress at $1m stated:

> Three investigators . . . concluded that the annual increase rates for horse populations implied by published information from several studies on reproductive and survival rates must be considerably lower than the 16 to 18 percent commonly inferred from (BLM) censuses and might be conceivably below 10 percent.

NAS, Committee on Wild Free-Roaming Horses and Burros, Final Report, p. 14 (emphasis added).

Based on this annual population increase of 10%, the numbers of animals remaining after 1987 roundups will probably be below 25,000. Considering this, it seems clear that the BLM's figures of animals on public lands is too high. This figure is likely to be closer to their required management objective of 25,000 animals, (21,000 wild horses and 4,000 burros). This total is below the level on public lands in 1971 when Congress passed the Wild Free-Roaming Horse and Burro Act precisely to protect these animals. Having abused the Act, the Bureau's justification for removals in order to protect the rangelands threatened by their numbers is refuted by the following facts:

1. $4.3. livestock graze on BLM lands in the 10 states where the wild horses have an inherent right to live;
2. Approximately 2m livestock graze on Forest Service lands in the same area;
3. Approximately 2m large game animals also share these lands;

This makes wild horses and burros a small fraction of public rangeland grazers. Multiple use management of these lands has turned into single use in favor of cattle, at the expense of the other animals who share these lands.

The consequences of this badly managed, grossly over-funded program have increased dramatically these past years, and all at the taxpayers expense. This has been demonstrated by the removal of thousands of animals kept in corrals awaiting adoption. This forced BLM to turn to fee waiver adoptions, thus setting the prospects for fee-waiver adopters to exploit these animals for profit in a rash, inhumane manner. This type of adoption became the principal method of removing animals from the corrals in 1987. Two thirds of the 12,000 fee waiver adoptions - 8,000 - were received by fee waiver adoptees. As has since become evident many ended up in slaughter houses and rodeos. In abetting these proceedings BLM employees looked the other way. The BLM has become a victim of its own mismanagement because of a problem they created, and have been unable to solve satisfactorily.

The Fund for Animals joined the Animal Protection Institute of America in a suit against the Interior Department in federal court, Reno, Nevada. The litigation proved that the BLM was well aware of the destination and fate of some of these horses. Last summer Judge McGibbon ruled in the plaintiffs favor.

If the $7.5m appropriations level is held, funds for roundups will not be available. The cost of the program including care of the animals from 1988 removals and a no-fee waiver adoption program will be greater than the appropriations requested. The BLM's assumption that sale authority would reduce these costs is totally misleading.

The Fund for Animals recommends:

1. That funds for roundups be withheld, since further removals are not necessary;
2. That the provision against using funds to destroy healthy wild horses and burros awaiting adoption be continued;
3. That authority for BLM fee waiver adoptions be withheld;

4. Any proposal by the BLM to amend the Wild Horse and Burro Act of 1971 to sell wild horses and burros at auction must be refused.

The "indefinite suspension" of the fee-waiver program is a step in the right direction, however we want to see a permanent solution to this problem with the BLM taking primary authority to assure humane adoption and treatment of wild horses and burros. The thousands of fee-waiver horses in the "pipeline" should be rescued from this situation.

Since the BLM is seriously considering the private sanctuary program, we would also like to point out that they have adequate lands under their jurisdiction which should be considered for sanctuary status, soley for the protection of the animals. Where necessary they should reclassify land for this purpose in favor of the wild burros and horses.

On the consideration of sanctuaries we recommend that they be considered on their individual merits in fulfilling the following conditions:

1. To provide homes for wild horses and burros considered to be unadoptable and excess;
2. Range and pasture conditions should be maintained for these animals;
3. That they are to be maintained under conditions in which they cannot reproduce;
4. That title to wild horses and burros remain with the U.S. Government;
5. Sanctuary operators must be able to demonstrate a working knowledge of horse and burro husbandry;
6. Operating plans must include provisions for supplemental feeding, veterinary care, and farrier care.

An advisory group made up of BLM employees and animal rights groups will be consulted at least annually concerning the health, welfare and care of the horses and burros. These sanctuaries be considered an emergency measure along the way to helping the BLM with their problems.

Recent media coverage on wild horses, and requests for General Accounting Office reports by members of Congress on aspects of the BLM's adoption and management program of wild horses and burros have brought public attention closer to this problem. This interest cannot but increase, and future events will be followed more closely.

We propose that Congress keep an even more watchful eye on failures in this program, and future efforts to correct these failures, and require a budget proposal that would protect the future, in a legal and humane manner, of a national heritage given to them in the public trust.

We urge this Committee to accept our recommendations.

## STATEMENT OF RICHARD GURNOE, RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA INDIANS

Mr. Chairman, Members of the Committee, thank you for this opportunity to address you today. My name is Richard Gurnoe, Tribal Chairman of the Red Cliff Band of Lake Superior Chippewa.

Our small reservation is located at the extreme northern tip of Wisconsin on the shores of Lake Superior overlooking the magnificent Apostle Islands. Most of the Red Cliff Reservation is timbered, and unsuited for agricultural purposes. Our only industry is fishing - the mainstay of our economy, as it has been for hundreds of years. Fishing and related jobs employ 15% of the tribal work force. In 1986, we dedicated our own fish processing plant that directly markets a majority of the local catch by Indians and non-Indians.

Since 1972, the Red Cliff Tribe has possessed co-management status with the state of the fishery resources in the Wisconsin waters of Lake Superior. As Tribal Chairman, I'm pleased to report that as of last year, the Red Cliff Tribe will have completed 10 consecutive years of joint management of the Lake Superior fishery with the State of Wisconsin. Red Cliff will have achieved this remarkable accomplishment through two agreements hammered out with the state at the bargaining table. In addition to the negotiated fishing agreements we've worked out with Wisconsin over the past several years, we are now fishing under management agreements with the other two fishing tribes in our area, the Bad River and Keweenaw Bay Chippewas.

Faced with the new fishery management responsibility under these agreements, the Red Cliff Tribe was able to establish a unified Fishery Management/Enforcement Program in 1985 with Federal funding and continue it to the present time. This program includes Fishery Management with a small staff including a professional Fisheries Biologist and Fishery Technicians; a Conservation Enforcement Program with four Conservation Officers who are graduates of the State Police Academy; and a Court System comprised of a professional attorney, two Tribal Judges and two paralegal assistants. This program provides a system of fishery resource assessment, commercial fisheries monitoring, enforcement of tribal fishing and other conservation codes, and tribal prosecution of offenders. Only because of this complete program is the Red Cliff Tribe able to maintain our ability to meet the State of Wisconsin as an equal bargaining partner in the fishery management agreements.

Lake trout, the most important commercial and sport fishing species, was decimated over 30 years ago by the parasitic sea lamprey. With the implementation of federal, state, tribal and Canadian sea lamprey controls, it is impossible to reestablish lake trout through a judicious stocking program. It is estimated that just to rehabilitate the Wisconsin waters of Lake Superior will require a minimum of 447,000 yearling size lake trout per year. The majority of these fish wee supposed to be supplied from the U.S. Fish and Wildlife Service Hatchery System. Due to chronic disease and water quality problems at the new Iron River Hatchery, the entire stock was lost in 1987 and also in 1987. This hatchery has been unable to attain even the minimum production level in the 3 years it's been in production. Red Cliff recently signed a state/tribal management agreement for the 10 years 1986-1995, and our success is dependent on the production from the Federal hatcheries. Lake trout production from the Federal hatcheries serving the Great Lakes has been so decimated that there will be no stock available in 1988 for Wisconsin waters. The likelihood of ever receiving the nearly 450,000 stocked fish called for in the state/tribal agreement in any one year is suspect.

The Red Cliff Tribe has come far in developing its fishery management capabilities and more importantly, a degree of economic self-sufficiency through commercial fishing and our new fish processing plant. Our fisheries provide over $450,000 in personal income, and it is anticipated this will increase considerably with the expansion of markets for our processed fish products. The new 10 year fishing agreement we recently entered into with the sate severely reduces quotas and seasons for both non-Indian and tribal fishermen due to the shortage of lake trout entering the fishery. It is in the best interest of all concerned parties, Indians, non-Indians, sports fishermen and commercial fishermen to work cooperatively to achieve a fully restored lake trout population. This would mean a minimum of 50 more people from our area could be employed in the fishing industry.

The Red Cliff Tribe has demonstrated our concern for the protection and enhancement of the Lake Superior fishery, and we strongly support the efforts of Federal, State, Tribal and sports fishing groups to rehabilitate the lake trout stocks. Because of continued problems of insufficient stocking rates, we are hereby requesting that $371,700 be added to the Bureau of Indian Affairs budget as a separate line item for the construction of a small efficient multi-species cold water fish hatchery on the Red Cliff Reservation, and that $91,500 be appropriated annually to support the operation and maintenance of the facility. These figures also reflect contract support costs.

We are grateful for the current funding we are now receiving to support Red Cliff's conservation objectives and ask that these monies be maintained. At this time we also request that Red Cliff's current Parks & Wildlife allocation, as well as any new funding, be placed into the banded segment of the BIA budget.

Thank you for your consideration of this request.

## STATEMENT OF JOANN KAUFFMAN, EXECUTIVE DIRECTOR, SEATTLE INDIAN HEALTH BOARD

Mr. Chairman, the Seattle Indian Health Board is a non-profit health care agency, incorporated in 1970 to serve the many Indians and Alaskan Natives residing in the greater Seattle area. Beginning as an all-volunteer clinic we have grown to become the primary source of health care for 85% of the Indians in Seattle-King County. Our services include primary medical care, prenatal/obstetrics, dental, outpatient mental health counseling, transportation, outreach and outpatient alcoholism counseling. SIHB also operates a 95-bed inpatient alcoholism and drug dependency treatment center, the largest Indian operated center in the country, known as the "Thunderbird Treatment Center." SIHB was the first urban health program to receive JCAH accreditation nationally and we are committed to maintaining quality services for the 20,000 Indians and Alaskan Natives in this urban area.

While over 50% of all Indians and Alaskan Natives in the United States reside in urban areas, less than 1% of the IHS budget goes to serve this population. It is ironic that the Indian population with the least resources is first on the list for administration cutbacks. SIHB opposes the administration's budget which calls for a 10% reduction in Urban Health. For every dollar of IHS Urban Health funding, SIHB matches three dollars in other revenues from patient fees and local support. It is unlikely SIHB could generate this amount of local support without the IHS base. Considering the economic condition of our patient population and the steady decline of alternate resources it is totally unrealistic to assume that there are other local resources to "take the place" of IHS dollars.

In a scientifically sound Patient Needs Assessment Survey of 600 Seattle Indians we found that:

- o The mean annual income per family is less than $7,000 per year.
- o 43% of the adults have incomes under $5,000 per year.
- o 62% have NO FORM OF HEALTH COVERAGE.
- o 36% report not having enough money per month for FOOD or HEAT.
- o 90% felt that SIHB meets the health needs of Seattle-King County Indians.

The drastic underfunding of Urban Health across the country must be addressed. SIHB supports FY 89 appropriations of $14.5 million. SIHB opposes a straight per capita reallocation of base Title V funds to urban programs. Any reallocations must be based on performance, quality of existing services and appropriateness of existing programs. Given the fact that we are attempting to service 50% of the nation's Indians with less than 1% of the IHS budget, a straight per capita reallocation would only create equitable mediocrity and across the board underservice. SIHB requests that Congress not sacrifice the larger, more functional clinics in a reallocation formula, but build equity through increased appropriations.

A. With regard to the $14.5 million proposed for Urban Health, SIHB supports the following:

1. AIDS Funding for High Risk Urban Populations:

Urban populations are at high risk for AIDS. Recent research indicates that inner city minority youth are the new "at risk" group likely to experience a dramatic increase in HIV positives. In the Northwest Portland Area of the Indian Health Service, it has been reported that the majority of the AIDS diagnosed patients came from the urban area, primarily from Seattle. The Northwest AIDS Foundation of Seattle keeps statistics on Seattle AIDS patients. They reported that as of January 1988, there were 11 American Indians identified as AIDS patients. Many of these individuals eventually will return to the reservation. The critical opportunity for effective AIDS Prevention/ Education/and Intervention is in the urban areas.

Indian people suffering from alcoholism and drug addiction are often also intravenous drug users or experience intimate relationships with intravenous drug users in the inner-city. The Seattle-King County Health Department has found that 75% of the intravenous drug users in our city streets admit to sharing needles. Many of the teenage prenatal patients at SIHB have disclosed their fears that their boyfriends were intravenous drug users.

The Indian Health Service must act quickly to counter the advance of AIDS in the Indian population, and it must include the Urban Indians if it is to be successful. The SIHB Patient Needs Survey found that 72% of the Seattle Indians have family or friends living on the reservation, and 47% go home to their reservation at lease once a year.

Adequate resources must be provided for screening activities for high risk populations in the Indian community. An aggressive education and prevention effort is needed, particularly in urban communities. Finally, culturally sensitive mental health counseling will be an ongoing need for patients and families of patients diagnosed with AIDS.

2. Need for Mental Health Funding:

The mental health funding for Indian Health Service nationally is far below the need and apparently out of proportion to the realm of health indices of the population. The high mortality of Indian people suggests the tremendous "losses" individual Indians must deal with. The history of forced acculturation, relocation, religious suppression, racism, alcoholism, suicide and violence, to name only a few, contribute to the instability of mental wellness which is already undermined by the stresses of low socio-economic pressures. In Seattle we have found that Indians respond to a mental health program which employs Indian mental health professionals and incorporates a sensitivity to Indian culture. County statistics when adjusted for income, show that Indian populations are underserved, least likely to utilize the inpatient system and most likely to be left out. SIHB has experienced a loss in funding from the State and County for "mental health," because of the trend to fund only services for the "deinstitutionalized chronically mentally ill."

3. Prenatal and Obstetrical Services:

The Seattle Indian Health Board delivers approximately 80% of all the Indian babies born in the City. SIHB receives no special funding to support the prenatal program. Because Indian women for the most part utilize the "Indian clinic" almost exclusively, referrals to high risk programs for high risk patients are not followed by the patient.

Poor health in pregnant women and inadequate nutrition during the early years of life can severely impact the mental and physical development of children. The Office of Parent-Child Health, Division of Health in Washington State compiled a report on Native American Obstetrical Care. The report found that:

- o Native Americans receive prenatal care later and have proportionately more low birth weight babies and higher infant mortality than the total population.
- o Low birth weight has been identified as the single greatest health hazard for infants.
- o Washington State reported a 7% low birth weight rate for American Indians and Alaska Natives. The rate in the white population was 4.6%.

Among babies delivered to SIHB patients during 1987, there was a low birth weight rate of 2% (of 122 live births).

4. Expansion of Services:

Dental services have been cut back and the SIHB Optometry program totally eliminated due to increased costs and fewer resources. The dental chairs utilized by SIHB are in desperate need of repair or replacement. Malpractice insurance for SIHB continues to grow beyond the financial resources of this agency. Due to recent changes in State law surrounding medicaid reimbursement and local hospital responses, our physicians must now assume responsibility as the attending physician for all our hospitalized patients. Assistance to existing urban programs to keep pace with the needs in their communities is needed.

5. New Starts:

SIHB supports funding for the Indian Health Service to identify and fund urban Indian communities which warrant but as yet do not have available health care services.

B. With regard to Alcoholism and Drug Treatment, the SIHB requests that the Congress continue to support the activities of the THUNDERBIRD TREATMENT CENTER. The increase provided in FY 88 was targeted into daily operations as provided in the language of the law, and it is hoped that this support will continue as a part of our historical base of funding.

C. Finally, the Seattle Indian Health Board wishes to inform Congress that the national demonstration project funded by the DHHS Office on Minority Health to SIHB is finishing its final year. The project was aimed at "Breaking the Cycle of Alcoholism" through a model for ADULT CHILDREN OF ALCOHOLICS. The response from Indian communities has been overwhelming. Addressing the needs of "Children of Alcoholics" is just as critical as treating the alcoholic, in order to break the intergenerational cycle of the disease. SIHB requests that the Indian Health Service incorporate a training curriculum in its PL99-570 resources to elevate the knowledge level and treatment for Indian people suffering from the ACOA syndrome.

## STATEMENT OF ROBERT L. HERBST, EXECUTIVE DIRECTOR, TROUT UNLIMITED

On behalf of Trout Unlimited, which is the world's largest conservation organization devoted to the protection and enhancement of the coldwater fishery, I wish to offer comments and recommendations on the Administration's proposed 1989 budget of the U.S. Fish and Wildlife Service for your consideration as you you review and finalize it. I would appreciate the comments being made a part of the hearing record.

### National Recreational Fisheries Policy

We/I congratulate Director Dunkle, and the U.S. Fish and Wildlife Service for the initiative of moving forward on this needed policy. We/I urge Congress to be supportive of this effort.

### Sport Fish Restoration Account (Wallop/Breaux)

We/I am pleased that the Administration request does not contain a proposal to transfer any money from the Sport Fish Restoration Account. We/I remain strongly opposed to any transfers of this immensely successful program. We urge that you continue to assure that these funds are for the exclusive purpose of fishery research, habitat improvement, boating access, and facility improvement.

### Fishery Plans on the National Wildlife Refuge System

We/I recommended that five hundred thousand dollars be budgeted to continue to implement needed fishery plans on the wildlife refuges. We/I further urge that this appropriation be administered by the Fisheries Section of the U.S. Fish and Wildlife Service so that its appropriate and primary use for fisheries is adhered to. We/I also commend the funding of the challenge cost share program for fisheries projects on refuged at two hundred thousand dollars. We/I understand last year this program went generally to the refuges, but they and we prefer it goes to the fisheries programs on refuges. We/I have seen this program work in our partnerships over the past three years with the Forest Service and commend this focus in the Fish and Wildlife Service

### BIA Hatcheries and Assistance Stations

If the U.S. Fish and Wildlife Service is to continue to operate these stations then it is necessary that funding should go directly to the U.S. Fish and Wildlife Service rather than through BIA. The budget for operating these hatcheries and the technical assistance programs should be two million one hundred thousand dollars.

### Fish & Wildlife Management Account

We/I recommend fifty thousand dollars for stream habitat restoration for the Montana grayling.

We/I recommend seventy-five thousand dollars for restoration of cutthroat trout in the Rocky Mountains (species have declined by 90% from historic range.)

Yellowstone National Park's fishery resources are unique and very important to the general public. Additional management is necessary on streams. We/I recommend an additional fifty thousand dollars to meet service and NPS objectives.

## Fisheries Academy

The Academy developed out of a historic need to provide training in fish health and fish culture/husbandry to fish culturists with little or no formal training.

Even today, most persons working in fish culture have backgrounds in general biology and/or fishery and wildlife biology. They lack training in fish culture, fish nutrition, and fish health.

Fishery management and fish culture are rapidly developing and changing fields. In-service training must be provided regularly to maintain an efficient workforce that employs state-of-the-art techniques.

Because of the importance of this facility, We/I urge funding of at least five hundred thousand dollars.

## Russian and Klamath Rivers

We support restoration of both river systems historic salmonid populations. We/I support a million dollar budget and two new project employees for the Klamath/Trinity restoration. We/I also strongly support 2 million dollars in new budget funds to initiate a study on the Russian River. One million of this appropriation is for the Army Corps and one million is for the Fish and Wildlife Service to cooperatively study the Russian River.

## Refuge Operations

We/I recommend increased funding of refuge operations and maintenance over the 1988 level of one hundred sixteen million three hundred thousand dollars. Thus a total of one hundred twenty-four million dollars is requested for FY1989.

## "FISHERIES REVIEW"

The publication, FISHERIES REVIEW, is an important literature source and We/I recommend funding be restored to the Services Research budget to continue its publication. Two hundred fifty thousand dollars plus three employees are needed to continue this valuable publication.

## Fish & Wildlife Conservation Act of 1980

We/I recommend that five million dollars be provided which will offer matching grants to states for non-game management.

## Research Center

We/I recommend that one hundred fifty thousand dollars be added to the Services budget for research at the National Fisheries Research Center in Gainsville, Florida.

## National Fish & Wildlife Foundation

This is an excellent initiative by Congress that should be funded the the full five million dollar level in order that the encouragement and assistance to many fish and wildlife habitat projects can continue.

Land & Water Conservation Fund

Consider adequate funding (perhaps at least fifty million dollars) to acquire top priority fish and wildlife habitats as identified by the U.S. Fish and Wildlife Service. We/I also recommend a budget of six million five hundred thousand dollars for the subactivity of aquisition management.

Bears Bluff Field Station

This station can make a substantial impact toward achieving fishery goals. We/I recommend it be rehabitated as rapidly as possible and funded appropriately for this purpose.

Endangered Species

We/I urge restoration of the state grant program at six million dollar level.

Atlantic Salmon

We/I recommend strong ongoing support for this restoration effort to include one million three hundred thousand dollars for rehabilitating the North Attleboro National Fish Hatchery (MA), and one million eight hundred thousand to rehabilitate Craig Brook National Fish Hatchery (ME), and three hundred thousand to initiate a comprehensive habitat survey in the Connecticut River Basin, and two hundred thousand for tagging Atlantic salmon to fulfill the North Atlantic Salmon Council Organization treaty obligations.

Cutthroat Trout

We/I recommend seventy-five thousand dollars for this restoration of cutthroat to their indigenous intermountain range of Colorado, Montana, Wyoming and Utah. This project has strong inter-agency and private sector support.

I would like to thank the Committee for this opportunity to supply our recommendations for the 1989 budget of the U.S. Fish and Wildlife Service.

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## LETTER FROM EILEEN D. COOKE, DIRECTOR, AMERICAN LIBRARY ASSOCIATION

May 13, 1988

The Honorable Robert C. Byrd
Chairman, Subcommittee on Interior and Related Agencies
Senate Appropriations Committee
U. S. Senate
Washington, D. C. 20510
HAND DELIVERED

Dear Senator Byrd:

This letter is submitted for the Subcommittee's May 9 hearing record on FY 1989 appropriations for the National Endowment for the Humanities on behalf of the American Library Association. ALA is a nonprofit educational organization of 45,000 librarians, educators, trustees, and other friends of libraries dedicated to the improvement of library and information services for all Americans.

ALA is pleased to see that, for the first time in eight years, the Administration has not recommended cutting the total for the National Endowment for the Humanities, but has requested level funding of $140,435,000. Requests for individual NEH programs vary, however, and this letter addresses several specific NEH programs.

Humanities Projects in Libraries. ALA urges rejection of the Administration's request to cut Humanities Projects in Libraries by 28 percent. For a very modest cost, this program plays a significant role in the active involvement of thousands of citizens in humanities issues. Yet its continued existence with reasonable levels of funding is regularly threatened.

Libraries are exceedingly democratic institutions, serving as lively centers for information, and of intellectual and cultural life for broad cross sections of their communities. Public libraries, for instance, are used by 58 percent of the adult population, a very high use factor for a community resource. Libraries are natural centers for humanities programming.

We sometimes hear that the ratio of applications to awards is not as high as in other programs. However, in most cases, both the amounts requested and awarded are modest; annual awards range from $15,000 to $300,000 and average $90,000. Thus, a higher proportion of applications can be funded than in some other programs where only a few more expensive awards are made. Even so, applications exceed awards by almost three to one. If that ratio were much higher, fiancially strapped libraries would find it difficult to justify spending the time, money and effort to develop proposals--the chances of being successful would be too slim. Humanities Projects in Libraries reach more people and spawn more replication than many other NEH programs. The program deserves funding of at least the current $2.9 million.

Office of Preservation. ALA is concerned that the $4,495,000 level recommended in the Administration's budget request for the NEH Office of Preservation is a slight decrease from the current $4,500,000. The needs this Office addresses are enormous. Acids used in paper since about 1850 are destroying major portions of the collections of research libraries. The number of library volumes so brittle that further use may result in loss of text is now estimated to be 76 million and expected to rise to 114 million in the next 20 years as collections age. Without treatment, all but about ten percent of the remainder of book collections are expected to reach the same brittle state.

A structure is rapidly being put in place to ensure that aid for "brittle books" is used in the most efficient fashion through such coordinative groups as the Commission on Preservation and Access, established in 1986 to address such issues. Major library associations, including ALA, are represented on the Commission. A hearing was held on April 21 by the House Interior Appropriations Subcommittee on preservation issues, including the Commission's plan for large-scale filming of at least three million already embrittled volumes.

At the request of House Subcommittee Chairman Sidney Yates, NEH recently prepared a "Capability Budget" for its Office of Preservation, showing how additional funds could be used to address the national "brittle books" crisis. A copy of the NEH capability statement was sent to the Senate Subcommittee. This thoughtfully prepared document suggests $12.5 million for the NEH Office of Preservation in FY 1989, rising to $20.3 million in FY 1993. The NEH analysis showed that a budget of $12.5 million in FY '89 could support $7.5 million for preservation microfilming of brittle books (including national cooperative projects and projects in individual research libraries), $2.2 million for the U.S. Newspapers Program, $.8 million to preserve special collections at humanities institutions, $1 million for education and training of preservation personnel, and $1 million for such activities as state planning projects, research and development, and conferences.

The hearing indicated that libraries and other agencies were ready to increase the microfilming of brittle books, and that NEH was prepared to handle effectively a significant increase of funds for this purpose. Because this national crisis requires additional effort and immediate action, ALA recommends that NEH Office of Preservation funding be increased to $12.5 million in FY 1989.

ALA recognizes that preventive strategies such as mass deacidification efforts by the Library of Congress and increased use of permanent paper are also important. The House hearing addressed these aspects of preservation as well, which ALA strongly supports. ALA urges the Subcommittee and the National Endowment for the Humanities to promote the use by publishers and government agencies of alkaline paper meeting accepted standards for permanence as the most cost-effective solution for the future. The ALA Council recently passed a Resolution on Use of Permanent Papers in Books and Other Publications urging government agencies and publishers to use such paper for publications of enduring value. A copy is enclosed with this letter.

Access Projects. ALA also requests the Subcommittee's support for the Endowment's work in the areas of texts and reference materials. We particularly call your attention to the Access Projects program. ALA members tell us that it remains enormously needed by libraries, archival organizations, and scholars, and that it is seriously underfunded. For relatively modest investments through the Access Projects program, descriptions of important collections of research materials are made widely available to all who may need them. The budget request for Access Projects is $2,550,000, the same as the current level.

Challenge Grants. Many libraries have benefited from NEH Challenge Grants which have involved library funding for buildings, preservation, and computerization, but most of all for acquisitions in the humanities. These grants are a major fund raising stimulus and incentive; each federal dollar must be matched by three new nonfederal dollars. ALA is pleased to note that the budget request provides a slight increase for Challenge Grants, from $16,500,000 to $16,700,000.

In summary, ALA recommends that the Subcommittee: (1) reject the request to cut Humanities Projects in Libraries by 28 percent, and provide at least the current level of $2.9 million; (2) increase funding to $12.5 million for the Office of Preservation due to the severity of the "brittle books" problem; and (3) provide the requested levels for Access Projects and Challenge Grants. Any increases above the budget request should be new dollars and not provided at the expense of other NEH programs.

ALA appreciates the Subcommittee's support of the humanities, and the opportunity to provide a statement for the hearing record.

Sincerely,

Eileen D Cooke

Eileen D. Cooke
Director
American Library Association

# STATEMENT OF WARREN S. THOMPSON, DEAN, SCHOOL OF FOREST RESOURCES, MISSISSIPPI STATE UNIVERSITY

I am Warren S. Thompson, Dean of the School of Forest Resources at Mississippi State University. This testimony is offered in my capacity as Chairman of the National Committee on Research of the National Association of Professional Forestry Schools and Colleges (NAPFSC). This organization represents 62 university-based, forestry research, extension, and instructional programs in the United States. We appreciate this opportunity to comment on budget proposals for forestry research for Fiscal Year 1989.

About one-third of the total land area of the United States -- roughly 740 million acres -- is forested. More than 480 million of these acres are classified as commercial forest land. The economic and social benefits that we as a nation derive from this resource are enormous.

These benefits are primarily related to the production and processing of timber. The United States ranks first among nations of the world in industrial timber production. Forest-based industries employ 9% of the U. S. manufacturing labor force and account for 7.5% of value added by manufacturing. Forestry and forest products lead all other segments of the economy in employment, size of payroll, capital investment and number of industrial firms in many southern and western states; the growing and processing of timber provide the economic underpinning for hundreds of communities in all regions of this country.

There are good reasons to believe that forest products will become even more important in the future. Global demand for forest products is increasing. Consumption of paper and allied products is projected to increase 75%, wood-based panel products 55%, and solid products 25% during the next 15 years. This increase in demand coincides with diminishing wood supplies in many established wood producing countries. The United States is well positioned in terms of timber supply and manufacturing and transportation infrastructure to satisfy a major share of this increase in global demand. However, continued profitability of forest-based industries will require that the United States develop more efficient production and processing systems if it is to compete effectively in a growing international market where foreign competition is also increasing.

In addition to timber, the forests and associated rangelands provide a broad array of goods and services. Forest-based tourism is the primary local industry in many communities. These same forests provide habitat for wildlife and fish, forage for domestic animals, and protection for watersheds from which 75 percent of the nation's water supply originates.

The nation's forestry and forest products research program is a collaborative effort involving federal, state and industry personnel and resources. Through a national planning effort involving regional planning groups and advisory councils, research needs are identified and prioritized. These research needs and priorities typically focus on 5 to 10 problem areas and opportunities. They form the basis for research budget requests for the Forest Service and, increasingly, provide guidance for research programs conducted by schools and colleges of forestry.

This coordinated federal and universities research effort constitutes essentially all of the research conducted in the United States in forestry, forest products, and related fields. The level of funding provided in the past in support of this program is modest, considering the size, diversity, and importance of the forest resource. In fact, the constant dollar funding of Forest Service research has declined roughly 13 percent over the past 10 years. This has necessitated the closing of facilities at 10 research locations and caused reductions of 20 percent in the number of research work units and 26 percent in the number of scientists.

This downward trend in appropriations was reversed briefly in FY 1987 and 1988, thus providing hope that continuity in funding would be restored. However, the recommendation of the Administration that the FY 1989 appropriation be reduced 5 percent from the current level of $135.5 million to $129.3 million raises anew concerns about the future funding of forestry research.

The FY 1989 base budget request of $136.8 million is needed to address in an effective manner the six high priority research areas identified by the Forest Service and to continue the existing base research program at the current level. These six high priority areas are:

Forest/atmosphere interactions

Southern forest productivity

Forest management in the wildland/urban interface

International trade and competitiveness

Forest insect and disease outbrakes

Critical wildlife and fish interactions with timber management

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## STATEMENT OF THE NATIONAL ASSOCIATION OF STATE UNIVERSITIES AND LAND-GRANT COLLEGES

**I am Ronald F. Labisky, Professor of Wildlife and Fisheries in the Department of Wildlife and Range Sciences at the University of Florida, and Chairman of the Fish and Wildlife Committee of the National Association of State Universities and Land-Grant Colleges (NASULGC). With me today is Donald R. Progulske, Professor of Forestry and Wildlife at the University of Massachusetts, and Vice Chairman of the Fish and Wildlife Committee of NASULGC. We also represent two additional organizations--the National Fish and Wildlife Resources Research Council and the Association of University Fish and Wildlife Program Administrators. Our purpose today is to testify on behalf of the 149 institutions that comprise the National Association of State Universities and Land-Grant Colleges. The administrators, scientists, and educators in the Association are vitally concerned about the future viability of our fish and wildlife resources, which, in addition to their ecological, economic, recreational, and aesthetic values, are the barometers of the ecological health of the Nation.**

**As a point of reference, the recreational and economic values of fish and wildlife in the United States are increasing at a substantive rate each year. The 1985 National Survey of Fishing, Hunting and Wildlife-Associated Recreation revealed an overwhelmingly strong demand for the utilization and enjoyment of the fish and wildlife resources of the Nation. In 1985, 141 million, or 78%, of the 181 million Americans 16 years of age or older participated in some fish- or wildlife-related activity; in contrast, only 99 million, or 58%, of the 170 million Americans of the same age profile were participants in 1980. In 1985, fish- and wildlife related expenditures totalled $55.5 billion, which substantially surpassed the expenditures of $40 billion in 1980. Collectively, in 1985, the non-consumptive use of these resources outweighed the consumptive use by nearly 2 to 1. Importantly, the public's perception of the fish and wildlife resource has changed notably in the past decade. Our citizenry also have has expressed a strong willingness to make substantial social and economic sacrifices to safeguard wildlife resources. Thus, fish and wildlife resources represent a renewable commodity for which there is a strong and rapidly increasing public demand, and, accordingly, a commodity that is capable of generating sustained economic returns.**

The intelligent and rational conservation and management of this Nation's fish and wildlife resources in the future will be crucial and difficult. At stake are not only our fish and wildlife resources, but also their associated habitats--irreplaceable estuaries, wetlands, rivers and lakes, farmlands and forests, which collectively constitute the functional base ecosystem. Conflict resolution wrought by the impacts of agriculture, forestry, mining, oil exploration and drilling, industry, urbanization, and climatic modification on fish and wildlife, and their habitats, will increase many-fold in the years ahead. To illustrate, fish and wildlife issues are a critical component of many current and emerging national issues, such as water quantity and quality, acid rain, toxic pollutants, soil erosion, cropland conversion, "sodbuster" and "swampbuster" programs, range rehabilitation, and de- and re-forestation. However, the research base needed to underpin the development of critical fish and wildlife policies is lacking. Moreover, the scope of problems and challenges in fish and wildlife research--on which decision-making and management is dependent--far exceeds the capabilities of resource agencies and institutions. We cannot meet our growing research responsibilities if we are forced to rely on the current level of available funds. A further critical point in this scenario is that the fish and wildlife profession, because of a short-fall of research monies and the overburden of immediate problems, has been forced to direct a major portion of its research to short-term or "brush-fire" issues. Collectively, these events have resulted in a critical demise in both basic and long-term research in fish and wildlife, which, has reduced our scientific readiness in being able to respond effectively to future problems. Fish and wildlife has been, and continues to be, a forgotten component in national policy. The priority need, therefore, is not only to insure the effective application of existing agency and institutional funding for fish and wildlife research, but also to supplement that funding in a functional and cost-effective manner.

Currently, there is no focal point for obtaining funds for basic and long-term research in fish and wildlife. The National Science Foundation funds some basic ecological fish and wildlife research, but only in a minor, or tangential, way. And, the Fish and Wildlife Service, Forest Service, Bureau of Land Management, and state resource agencies have their own internal priorities for research, most of which are directed toward land-management strategies. Mr. Chairman, we believe that there is a very cost-effective opportunity for enhancing this Nation's capacity for basic research on fish and wildlife. The universities and colleges of the Nation are the only major public-service institutions with a mandated research mission that do not have a sustained funding base for fish and wildlife research. What this means is that we have a large pool of scientific talent and facilities in place within our academic institutions that is not currently being deployed effectively to address the problems associated with managing fish and wildlife resources.

We believe the most feasible and cost-effective approach to enhancing basic and long-term research in fish and wildlife is through a competitive-grants program. Further, we recommend that this competitive-grants be initiated at an appropriation level of $10 million. Authorization for this program is contained within Public Law 95-307 (Section 5), the Forest and Rangeland Renewable Resources Research Act of 1978. This Act identifies fish and wildlife resources as value components that would benefit from appropriate research. Administration of the program would be conducted through the Office of Competitive Grants, Cooperative State Research Service, U. S. Department of Agriculture. Grants would emphasize basic and long-term research investigations designed to enhance the implementation of effective management of fish and wildlife resources. Grants, as authorized by the Act, would further research activities of federal, state, and other governmental agencies, public and private agencies or organizations, public and private universities and colleges, and individuals and businesses in the United States. The granting process would involve proposal submission and peer review.

The awarding of competitive grants should be based on identified priorities, established to enhance the understanding of the inter-relationships of fish and wildlife with their environments. As the pressure for expanded uses of our Nation's natural resources become more acute, it becomes increasingly important to gain scientific knowledge relating to the impacts of human activities on the valuable fish and wildlife resources--especially those in unique and sensitive ecosystems. We suggest that the following research priorities be identified in the Competitive-Grants Program for Fish and Wildlife Research: (1) aquatic and wetland ecosystems; (2) environmental contaminants; (3) endangered species; (4) urban wildlife; (5) agriculture, range, and forest landscapes; and (6) long-term climatic changes.

We assure you that the administrators and scientists in the state universities throughout the country support the position that the fish and wildlife resources of this Nation cannot be conserved adequately without accelerated research funding. Thus, on behalf of the National Association of State Universities and Land-Grant Colleges, we ask that you initiate a $10 million competitive grants program to support basic and long-term fish and wildlife research.

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# STATEMENT OF DR. BETTYE COLLIER-THOMAS, EXECUTIVE DIRECTOR, BETHUNE COUNCIL HOUSE NATIONAL HISTORIC SITE

## INTRODUCTION

The Bethune Museum and Archives, Inc. National Historic Site (BMA) is pleased to submit this testimony to the Senate Subcommittee on Interior and Related Agencies. This testimony summarizes the institutional focus for FY 1987; and includes a budget projection for FY 1989.

Because of its location in the nation's capitol, and its extremely high visibility as the only institution in America which documents the history of Afro-American women and as the major repository for primary sources on this subject, BMA has been subject to extensive nationwide public requests for services. In FY 1987 BMA received a Congressional appropriation of $199,000. These funds were utilized primarily to mark, interpret and restore the site. Interpretive funds supported the development of exhibitions, public programs and guided tours. The institution's audience is reflective of America. The racial, gender and ethnic composition of its audience reflects a broad-based interest in the site and its services. Requests for services and site visitation is constant and year-round.

## CURRENT REQUEST FOR FUNDING

Limited funds for site interpretation and maintenance have placed an almost unbearable strain on existing staff and institutional resources. Moreover, the site is limited in its ability to serve certain segments of the population, the aged and the handicapped because of the lack of handicap access. It is important that these immediate issues be addressed currently by Congress through 1.) the assurance of a FY 1989 grant of $233,000 which includes an outright grant of $120,000; $100,000 in matching funds for restoration and renovation and the restoration of all funds to BMA for the period FY 1987 and FY 1988 at the levels authorized in Public Law 99-187 ($13,000)*; 2.) a grant of $400,000 for installation of handicap access.

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* PL 99-187 authorized BMA to receive $200,000 in FY 1987; $210,000 in FY 1988; and $220,000 in FY 1989. To-date BMA has received $13,000 less than authorized.

Pursuant to the 1982 designation of the property as a National Historic Site, since FY 1984 approximately one-half of the institution's funding has come from Congressional appropriation. This funding has been important to the continuing ability of the institution to interpret, mark and restore the site. It is crucial that members of the Senate Subcommittee on Interior and Related Agencies understand the nature of the interpretation which occurs at this site and the overwhelming need for greater support and involvement of the Department of the Interior, especially the National Park Service (NPS) in the promotion and development of this affiliated area.

## SITE DEVELOPMENT

The Bethune "Council House" National Historic Site is in need of development in several areas. The site is extremely understaffed. During FY 1987 there were six employees, one of whom was part-time for approximately five months. Staff included an Executive Director/Historian, Curator/Assistant Director, Development Officer, Museum Educator/Public Liaison (part-time), clerk-typist, and caretaker. Park Service funding provided some level of support for all positions, but that of Development Officer, which was funded fully by the Rockefeller Foundation. Volunteers and student interns were useful, primarily to perform support staff functions. However, it is difficult to attract long-term volunteers who can assume responsibility for key staff functions which require a full-time professional staff person. These positions must be filled by persons who have the requisite education, training and experience.

Funding is needed to employ a full-time Archivist, Archival Assistant, Museum Educator, Director of Public Relations, Secretary and Researcher. BMA will seek public and private funding for staff positions. Furthermore, given the core necessity of these positions to the interpretation and development of the site, funding should be the responsibility of the National Park Service.

The site is in need of restoration and renovation in several areas. Through an NPS Matching Grant, repairs will be made to the archives and main building. Cost for repairs and cyclical maintenance exceed the NPS grant. During FY 1987 proposals were submitted to several private foundations for funding aspects of this work. BMA will continue to seek public and private funding for this purpose.

## FY 1989 BUDGET JUSTIFICATION

Restoration, renovation and special projects defined in the legislation for PL 99-187 will continue as defined. Particular emphasis will be placed upon preservation of existing archival collections and making these materials more accessible to the public.

BMA needs funding for additional staff for the museum and archives to fulfill its mission. In the future BMA will seek additional federal funding for support of crucial areas of interpretation and preservation critically related to the performance of its mission.

BMA's archival collections have almost outgrown the existing space, and the museum storage is overrun with exhibitions and equipment. The National Park Service has been approached about the possibility of providing an additional building for the archives. This would free up existing archival space for museum storage and preparation.

## FY 1989 BUDGET PROJECTION

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|---|---|
| Salaries and Fringes | $275,000 |
| Utilities | 26,500 |
| Office and Administrative Expense | 17,000 |
| Professional Services | 16,000 |
| Program Expense | 250,000 |
| Development Expense | 60,000 |
| Building Expense | 140,000 |
| | $784,500 |

## STATEMENT OF SHELL OFFSHORE INC.

Shell Offshore Inc., a wholly owned subsidiary of Shell Oil Company, supports the Department of the Interior (DOI) Outer Continental Shelf (OCS) Five-Year Lease Sale Plan. We believe that the implementation of leasing moratoria in congressional appropriations bills unnecessarily disrupts the program's orderly process. The following comments address our specific concern about OCS leasing off Florida.

DOI had scheduled four lease sales off Florida in its current Five-Year OCS Lease Plan. Only the Eastern Gulf of Mexico Lease Sale 116, scheduled for November 1988, occurs during fiscal year 1989. The three other OCS lease sales are South Atlantic Sale 108 in November 1989, Eastern Gulf of Mexico Sale 137 in November 1991 and the Straits of Florida Sale 140 in June 1992, now deleted.

On March 24, 1988, Governor Martinez of Florida and Interior Secretary Hodel signed an agreement eliminating 11 million acres off Florida from federal OCS leasing plans. These deletions were in addition to 32 million acres which were previously removed from Florida OCS sales in the five-year program in July 1987. Not only did the agreement make acreage changes in Eastern GOM Sales 116 and 137, it eliminated Sale 140 off the Florida Keys which had been scheduled for 1991. Additional lease stipulations on spill containment and clean-up also were included in the agreement. Shell believes this agreement has addressed the major concerns expressed by Floridians, and therefore the remaining proposed lease sales should proceed as scheduled without any further disruption in the pre-lease planning process for these sales.

We are concerned that the Subcommittee could be requested to consider additional Eastern Gulf sale acreage deletions, including areas encompassing existing leases sold in the past two sales. Of particular concern to Shell is any consideration of deleting previously offered acreage in the area south of 26 degrees north latitude. In 1983, Congress allowed leasing in this area, but directed DOI to delay any exploratory drilling until the completion of three years of environmental studies. These studies have been completed and the State of Florida now has substantial environmental data for use in reviewing drilling plans and for determining whether proposed plans are consistent with the state's approved coastal management program.

No exploratory drilling has occurred in the Eastern Gulf sale area south of 26 degrees north latitude. Future drilling and geophysical evaluation could indicate oil and natural gas potential in currently unleased acreage. Continued access to this area via future lease sales is necessary to determine whether oil and natural gas exists in commercial quantities.

In summary, Shell Offshore Inc. believes the Eastern Gulf Sale 116 area, as modified by the Hodel-Martinez agreement, should not be further changed. We strongly oppose any further deletion of acreage previously offered in Eastern Gulf sales in 1983-1985, particularly in the area from 26 degrees north latitude south to 25 degrees north latitude. In addition, we believe that the planning process for Sale 137 should continue and that scientific environmental analysis should be the basis for determining the final acreage to be included in this sale.

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## LETTER FROM JAMES G. HERMANN, MINNESOTA SOCIETY OF ARBORICULTURE

February 25, 1987

The Honorable Robert Byrd
Chairman, Approp.Subcom. on
Interior and Related Agencies
114 Dirksen Senate Office Bldg.
Washington, D.C. 20510

Dear Mr. Chairman Byrd and Subcommittee members:

I am writing to request your support for funding of the U.S. Forest Service State And Private Forestry and Recreation Research budgets. More specifically, that the approximately five million dollars ($5,000,000) for Urban Forestry (State And Private) and one million dollars ($1000,000) for Urban Forestry Research (Recreation Research) be approved. Federal Program Dollars generally provide technical assistance or special project incentives and can serve as "Seed Money", to committed communities and researchers who wish to develop Urban Forestry Programs or to conduct Urban Forestry Research.

Minnesota is highly active in Urban Forestry but to date, does not have a coordinator at the state level who's time is totally dedicated to this endeavor. Part of the State and Private funding request calls for one and one half million dollars ($1,500,000) to be specifically dedicated to hiring State Urban Forestry Coordinators. An Urban Forestry Coordinator in Minnesota is a much needed and necessary link in continuing to lay the foundation of a solid, successful and lasting statewide Urban Forestry Program. This coordinator would act as a accountable and recognizable hub of information and assistance at the state level, serving to coordinate the efforts of communities and other government and private groups and keep Minnesota informed about Urban Forestry activities in its neighboring states and at the national level.

I also urge your approval of the one and one half million dollar (1,500,000)," HIGH PRIORITY PROJECTS", portion of the request. Increasing activity by the Minnesota Department of Natural Resources to aid communities carrying out innovative Urban Forestry projects in management and utilization, have increased and technical assistance to Minnesota communities in 1988 is up by nearly 30% over 1987.

The Minnesota Department of Agriculture in 1986 reinstated its Shade Tree Program to help communities in their effort to control Dutch elm disease, Oak Wilt, Gypsy Moth and other shade tree diseases. In 1987, with their help, fifteen individual communities along with the counties of Anoka and Washington established local programs to control Oak Wilt. The training of tree inspectors, which is also done by the Department of Agriculture, increased from 450 people and 300 communities in 1987 to over 585 people and 390 communities in 1988. State and local organizations are beginning to take the lead in presenting educational programs intent on confronting these major Urban Forestry issues and focusing on areas of needed research.

Funding Urban Forestry Research in Minnesota is an important issue. The unique problems brought about by Dutch elm disease, Oak Wilt and other shade tree diseases, not to mention commercial and residential development, are rapidly changing the face of the urban forest and have introduced new insect and environmental concerns which will have to be addressed in the very near future. Some communities have begun co-operative efforts in investigating these problems but much more needs to be done. In addition, there is a basic need to research and implement new technology and urban forestry management systems designed to maximize the benefits of trees and the urban forest within our communities.

The quality of life we experience in Minnesota is due in part to benefits derived from a green, healthy, thriving urban tree community and although the increased funding for these programs is modest, the cumulative effect when combined with state and local dollars can be significant. Therefore I urge your support to fund these Programs.

I appreciate your time. Thank you for allowing me to submit this statement for the record.

Yours truly,

James G. Hermann

James G. Hermann
Chairman, Research and Technology Transfer Committee,
NU-Forest Council, AFA and Legislative Committee member
and a Past President, Minnesota Society of Arboriculture

## STATEMENT OF STEVE SCHWAB, URBAN FORESTER, SALT LAKE CITY, UT

As Urban Forester for Salt Lake City, Utah, I have direct involvement in urban forestry. I am concerned about the proposed appropriation for the urban forestry line item in the USDA Forest Service 1989 budget. I believe it is essential to at least maintain funding levels at $2.0 million and highly recommend and ask for your support to increase funding to $5.0 million for this important program.

Although the funding level for Urban forestry has been minimal in comparison to the estimated value of America's street trees ($25 billion), the benefits of the efforts have been significant. For example, in my home town of Salt Lake City, Utah, Forest Service technical assistance and grant monies have been used to help conduct a comprehensive computer street tree inventory. The benefits of this program for the community have been great in providing the following:

> It allows, for the first time ever, the implementation of a systematic computerized inventory to efficiently manage our urban forest resources.
>
> It will increase the cost-effectiveness of our City's tree care activities by allowing priorities, scheduling, and budgeting to be based upon actual conditions and needs of our community trees.
>
> It provides exact information on individual tree maintenance requirements, budget estimates for personnel, and equipment required for our urban forestry program.
>
> Allows for scheduled tree management based upon accurate and current information concerning our community's trees.
>
> It provides records showing how public funds have been spent and how maintenance activities are affecting long-term tree management activities.
>
> It identifies tree planting sites, site restrictions, and evaluates the performance of tree species planted.

Research done to benefit urban forestry efforts is also a very important part of improving the quality of life for residents of cities and towns. This funding is part of the Forest Service's Forest Recreation Research budget and not a seperate line item. I feel this research has been very valuable and request the funding be increased to a level of $2.0 million.

Research monies for urban forestry are needed and being used to develop improved tree species that can grow and withstand the rigors of our urban environment. The need to maintain and hopefully increase research efforts concerning how urban trees grow and survive in various urban locations is also important if we are to maximize the lifespan and benefits of our urban forests.

While many federal, state, and municipal expenditures involve capital investment in projects that decline in value over time, proper tree planting and timely maintenance of our urban forests represents an investment that increases in value over the years. That is, public trees represent a community asset that enhances not only the quality of life, but property values as well. In addition, an aesthetically pleasing urban environment is necessary to attract and retain its residents and commercial businesses. Urban Forestry is the management of a community's "green infrastructure" (i.e. its trees) and it enhances both the aesthetics and quality of the environment, thus helping communities such as Salt Lake City and others to develop and grow in positive ways.

Thank you for this opportunity to submit a statement for the record.

## STATEMENT OF JAMES J. NIGHSWONGER, EXTENSION SPECIALIST, ENVIRONMENTAL FORESTRY, KANSAS STATE UNIVERSITY

As program leader for Urban and Community Forestry in Kansas I am concerned about the Federal funding level for this program. I am urging you to support an urban forestry appropriation of $5.0 million for the urban forestry line item in the USDA Forest Service 1989 budget. This increase is needed to support a highly successful and growing citizens effort to create healthier and improved environments in our cities and towns by planting and maintaining trees.

The program is popular! In Kansas for example, 110 of our cities and towns have effective Urban and Community Forestry programs representing over 200,000 acres under management and a tree resource valued at $170 million. While larger towns have local tax supported programs small towns which comprise the bulk of the municipalities in Kansas have citizen volunteer programs. Last year volunteers contributed 22.5 man-years of time valued at $208,000. All of this is being accomplished with only 1.2 professional annual man-years of effort by our staff.

While these figures may indicate a high level of accomplishment in spite of very modest funding levels in the past, in reality only 1/3 of our cities and towns with the potential to manage their tree resources have programs to do so. An increase in Federal funding would give us the resources necessary to develop programs in many of the municipalities that are now unserved.

Kansas citizens are proud of their urban and community forests and the benefits they provide. This is reflected in the quality of the programs now in existence. Fifty, or nearly 1/2 of the municipalities with programs are Tree City USA's as recognized by the National Arbor Day Foundation. In 1987 our state was 4th in the nation in the number of Tree City USA towns.

The request for a funding increase is also necessary to better support research in Urban and Community Forestry. There is much we need to know about growing trees in paved and densely populated environments. The quality of life is being improved in urban areas and trees are a significant part of this objective.

Thank you for the opportunity to submit a statement for the record.

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## STATEMENT OF THE PENOBSCOT INDIAN NATION

Good Afternoon, Mr. Chairman, I am Jim Sappier, Governor of the Penobscot Nation located in the State of Maine. I would like to introduce George Tomer, Director of the Penobscot Nation Tribal Court.

While we are pleased to see nearly a 4 percent increase in the health services portion of the proposed FY 1989 budget of the Indian Health Service, health care costs have consistently inceased through inflation at a rate of 8 to 10 percent. Thus, the 4 percent increase will actually purchase less health care than the funds appropriated in FY 1988. Based upon our Tribe's current backlog of cases we are already estimating a funding shortfall of $151,000 in FY 1988. If the new IHS eligibility standards are implemented, our service population will increase by at least 25 percent in FY 1989. Unless there is a significant increase in health care funding, the Penobscot Nation and other tribes will see a major erosion of the level of health care provided to Indian people in FY 1989.

In the area of law enforcement and tribal courts, the Penobscot Nation has been experiencing extreme funding shortfalls every year. Currently our BIA funding for law enforcement does not even cover the costs of base salaries for our grossly understaffed and underpaid personnel, let alone operating, maintenance and training costs of our program. Our funding shortfall for law enforcement of FY 1988 will be at least $142,000 and for operation of the tribal court at least $60,000. These shortfalls will get worse in FY 1989 without significant increases in funding. Pursuant to the Maine Indian Settlement Act we are required to provide federal and state certified law enforcement services. In the past we have borrowed money to cover these deficits. However, the Tribe can no longer absorb these costs.

In the area of BIA Social Services we are currently contracting General Assistance, Child Welfare and Miscellaneous Assistance. Last month we met with the BIA Eastern Office to advise them that we needed an additional $10,677 for our Social Services Administration Component. Without these funds, we are going to have to terminate our General Assistance Caseworker and our Workfare Coordinator for the remainder of FY 1988.

We also requested an additional $14,427 to hire a full time Child Welfare Caseworker and part time Legal Secretary. Without the General Assistance funds we will lose State funding. Two-thirds of our G.A. funds are from the State and one-third from the BIA. Presently we employ only one staff person who is responsible for carrying out all aspects of Child Welfare. Duties include but are not limited in investigating child abuse and neglect cases, formulating case plans, making home visits, recordkeeping, referrals, issuing foster care payments, maintaining familiarity with State and Federal laws, codes, agreements, and policies/procedures regarding Child Welfare, counseling, development and instituting reunification plans, locating potential foster care homes, making placement, etc. It has been proven, and as you can see from these job activities, additional staff is mandated. Conflict of interest issues have also surfaced. These issues pertain to the Child Welfare Caseworker acting in the capacity as a "Family Counselor" but yet appearing in Court representing the "Child".

This situation has created mistrust in parents and hindered the process of reunification. Additional staff would eliminate this problem and increase efficiency in dealing with Child Welfare issues. Further, funds would be available to employ the services of a part-time legal secretary. He/she would be responsible for ensuring all legal paperwork was processed on a timely basis and assist the Department in their endeavors for improvement. The BIA Eastern Office indicated that they would attempt to assist us for additional FY 1988 funding. Instead we received a notice within a few days of returning to Maine that our Social Services contract would be cut by $35,065. While BIA Eastern Area has advised us that some or all of the present cut may be reinstated later in the year, we have a shortfall now even without the cut.

The Penobscot Nation will need an additional $32,800 for an additional Child Welfare Caseworker and part time Legal Secretary in FY 1989 and an additional $18,425 to adequately maintain our General Assistance Caseworker and Workfare Coordinator in FY '1989.

Approximately two (2) years ago the Bureau of Indian Affairs requested Tribes to submit a Housing Inventory. The Penobscot Nation's Inventory, which was approved by BIA showed that approximately $168,700 annually for 5 years was required to bring substandard houses to minimal standard condition. Currently, the Penobscot Nation is only receiving 42% of the required yearly amount or $65,600. The proposed FY 1989 cut of $5,604,000 in the Housing Improvement Program or 25 percent will further jeopardize the well-being of our people. Therefore, we request that appropriations for the Housing Improvement Program be reinstated to at least the FY 1988 levels.

As you are aware, pursuant to the Maine Indian Claims Settlement Act, the Penobscot Nation and the Passamquoddy Tribe has been undertaking land selection, acquisition and exchange activities in Maine. The Bureau of Land Management is the only entity which can perform and legally certify cadastral surveys of Indian lands. The BLM cadastral survey team is far from completing the necessary survey work for the tribes in Maine. The Bureau of Indian Affairs contracts with BLM to perform the survey work on Indian lands. THE BIA has advised us that due to a shortage of funds and the need for survey work on other reservations that they will not continue to contract with BLM to finish their surveys on Indian Lands in Maine.

We request that one of three options be directed or authorized:
a) that BIA be directed not to discontinue their survey contract in Maine until the work is completed in Maine; b) BIA be authorized and funded to hire sufficient personnel to meet needs without having to prematurely discontinue contract survey personnel; or
c) the Penobscot Nation and Passamquoddy Tribes be authorized and funded to hire their own survey personnel and that such personnel be authorized to legally certify surveys on our Indian lands.

### Transportation Needs on Penobscot Trust Lands

The Penobscot Nation has acquired since 1980, 55,139 acres of Trust Lands. These land contain 58 miles of roads that need to be maintained annually because of flooding, timber harvesting, and recreational usage. Thus far, the tribe has only been able to effect a piecemeal approach to maintaining its road system within its trust territories to protect against forest fires. The anticipated annual maintenance for the 58 miles of trust roads is estimated at $40,000 (see attached correspondence from Natural Resources Director, John Banks for further details). We also oppose the proposed cut of $300,000 for fire suppression in FY 1989.

### BIA Economic Development Grants

The BIA proposed FY 1989 budget would eliminate the entire funding for the business development grant program. We strongly oppose this. The tribes in Maine have very successfully utilized this program to establish many viable economic development projects. Generally, we have leveraged outside funding at a ratio of 5 to 1 to match the BIA grant funding. The program has been critical to almost all of our ventures. Our only complaint is that the Eastern Area Office receives only a small fraction of the overall allocation of grant funds resulting in less than one in ten grants being approved due to lack of BIA funding. This program should be expanded, not eliminated.

### Maine Indian Scholarship Program

In 1976, the tribes in Maine were receiving $125,000 from the BIA for higher education scholarships. Since then, the number of students seeking scholarships has increased and the funding has decreased. Currently, we are only receiving $77,200 to fund 63 students. The average per studnet allocation for the Spring 1988 sememster is only $468.23. This amount represents about 50 percent of our unmet need. Many of our students are single parents (22) and many are facing extreme hardship attempting to stay in school and meet their basic needs. Some alternate semesters going to school and working out of necessity while some become discouraged and drop out or never start due to lack of funds. We request that funding for Maine Indian Scholarships be increased to at least its FY 1976 level of $125,000. Actual need is in excess of $50,000 in FY 1989.

## LETTER FROM JULIE CRAWSHAW, ARROYO GRANDE, CA

May 3, 1988

Mr. Charles Estes
Interior & Related Agencies Subcommittee
122 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Mr. Estes,

I understand that the Interior Appropriations Subcommittee will be hearing testimony on Monday, May 9th, regarding the establishment of sanctuaries for unadopted mustangs captured by the Bureau of Land Management. I wish to have my comments entered into the testimony.

All sanctuary proposals put forth to the Bureau of Land Management should be heard and thoroughly investigated by the Subcommittee or its designees, and no allocations should be made without Congressional approval. It is my understanding that Mr. Roland Dolly of the Office of Enterprise Initiation in South Dakota has suggested that the BLM transfer a large number of unadopted mustangs to the State of South Dakota, which would then place these horses with Mr. Dayton Hyde with title to them transferring after two years. In my opinion, this is clearly an attempt to circumvent the public hearing stage of the sanctuary process and must not be allowed to take place.

I am unalterably opposed to any transfer of title for wild horses kept on a sanctuary at any time. Our mustangs belong to the American people, and those horses who are unadopted after a reasonable period of time following their capture should remain the property of the people with no transfer of title to any individual or organization.

Given the behavior of the BLM personnel which was uncovered during recent investigations into fee waiver adoptions in which thousands of mustangs were given to individuals with power of attorneys and then sent to slaughter, it is quite clear that the Bureau cannot be trusted to act either in accordance with the law or in the best interests of the horses. Transfer of title would open the way to eventual destruction of the horses.

I have personally reviewed several sanctuary proposals including those submitted by Dayton Hyde and by Mr. Dan Johnson and Tom Wilson of Buffalo, South Dakota. I support the Johnson/Wilson proposal, which will help to save ranches as well as horses and therefore benefit the South Dakota economy, and ask that the Subcommittee support it, too.

Thank you.

Sincerely,
Julie Crawshaw
Julie Crawshaw
1975 Bee Canyon Road
Arroyo Grande, CA 93420

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## STATEMENT OF R. NEIL SAMPSON, EXECUTIVE VICE PRESIDENT, AMERICAN FORESTRY ASSOCIATION

The American Forestry Association, the national citizens organization for trees, forests, and forestry, appreciates the opportunity to share our views on the President's budget recommendations for the USDA-Forest Service in FY 1989.

**NATIONAL FORESTS: AFA RECOMMENDS THAT THE NATIONAL FOREST SYSTEM BE FUNDED IN A MANNER WHICH BALANCES CONSIDERATION OF TIMBER AND NON-TIMBER RESOURCES. AFA SPECIFICALLY SUPPORTS THE RESTORATION OF FUNDING FOR FOREST TRAIL MAINTENANCE; REFORESTATION AND STAND IMPROVEMENT; RECREATION USE; WILDLIFE AND FISH HABITAT MANAGEMENT; AND SOIL, WATER, AND AIR MANAGEMENT TO CURRENT PROGRAM LEVELS.**

The National Forests are special lands, and the law mandates that they be managed for the multitude of uses and benefits which accrue to all Americans, including those yet unborn. Yet the current Administration has advocated funding for the conservation of non-timber resources -- fish and wildlife, soil and water, and recreation opportunities -- at such low levels that these resources often only receive attention when associated with timber sales, and even then only receive the minimum level of management necessary to prepare the timber sales and harvest. Although the budget proposals for FY 1989 are slightly less skewed toward commodity production on the National Forests than in previous years, the President's recommendations can in no way be said to represent an acceptable plan for forest management.

This is not to say that there should not be considerable harvest of timber, and significant economic benefit from the National Forests, but rather that we are duty-bound to provide more balanced management to these special forest areas. We maintain that Congress can and should set broad goals for the National Forests, goals that address the need to provide adequate management for all forest resources. We do not think, however, that Congress should try to "micro-manage" the agency. Rather, National Forest management must proceed under the professional guidance of the Forest Service, and through the National Forest planning process.

AFA deeply appreciates the efforts which this Subcommittee have made to restore balance to the Forest Service budget. We feel strongly that FY 1989 holds the opportunity to make great progress toward the goal of more balanced National Forest management, by building on certain of the Forest Service's recreation and wildlife initiatives, while at the same time retaining an active timber management program. We have attached graphs to our testimony which depict recent funding trends for the National Forest System, as well as the agency's Forest Research, State and Private Forestry, and Construction operations, and we request that they be made part of the written record of this hearing.

In 1987, the Forest Service received $1.5 million in appropriated funds as matching funds for a challenge cost-share program which brought over 200 cooperators to join in habitat improvement on National Forests and National Grasslands. In 1988, the program was expanded to the $2 million level, to encourage cooperative programs in wildlife management; inlands fisheries; threatened, endangered, and sensitive species; and anadramous fisheries programs. The FY 1989 proposals include $5 million for the wildlife challenge cost-share program, and AFA supports the appropriation of at least that amount.

Building on the successful pattern of the wildlife challenge grant program, the agency has received funding for a similar program for the improvement of National Forest recreation resources. Funded as a pilot project at the $500,000 level in FY 1988, the new recreation cost-share program has attracted an impressive private sector contribution of $908,000 in matching funds to plan, construct, reconstruct, maintain, and operate recreation sites, facilities, and areas. If the results of this pilot project are as impressive as we expect them to be, we think that the FY 1989 proposal for a $3 million recreation partnership program will be money well spent.

This pilot project was initiated as part of the Forest Service's new recreation initiative, The National Recreation Strategy, which has been designed to create more high-quality outdoor recreation on National Forests and which can help restore true multiple-resource oriented management within the agency. AFA is genuinely impressed with the Forest Service's efforts to focus new attention on the management of both recreation and fish and wildlife resources. We see these programs as initial, good-faith efforts to improve the management balance on the National Forests. We are equally convinced however, that the agency's good intentions must receive the support of Congress in order to be truly successful, and that this support must be translated into increased appropriations for the management of both fish and wildlife and recreation resources. Challenge grant programs can be an effective tool in the management of these resources, but the agency must have full use of its other management tools as well. The Administration's proposals for FY 1989 would short-change improved management of important recreation and wildlife resources. It is for this reason that AFA recommends that Congress, at a very minimum, fund management of recreation, fish, and wildlife resources at the 1989 base level required to maintain current levels of resource conservation.

We would also like to call the committee's attention to the fact that monies drawn from agency trust fund accounts (K-V funds) have not been reimbursed following the expenditure of these trust fund monies for fighting forest fires in 1987. By the agency's calculations, the President's proposed funding for fighting forest fires in FY 1989 would still leave a $90 million "debt" to be repayed to these trust funds, which are held for the support of reforestation and other important resource conservation activities in conjunction with timber harvests. AFA supports the restoration of these K-V monies, in advance of a 1989 fire season during which they will they will once again be tapped for support.

**FOREST RESEARCH: AFA RECOMMENDS THAT THE PURCHASING POWER OF THE 1987 FOREST RESEARCH BUDGET BE PROTECTED AND CONTINUED. THIS WILL REQUIRE A TOTAL BUDGET OF $136.8 MILLION.**

Between 1978 and 1988, agency funding for both Forest Research and S&PF -- as measured in constant dollars -- suffered a steady and damaging decline. During that time, Forest Research capacity shrunk by 13.7% in real dollar terms, while State and Private Forestry capacity was reduced by 43.7%. In 1986, for the first time in 8 years, Congress was able to arrest this erosion of agency capacity -- and actually allowed for some much needed, albeit modest, expansion of the Forest Research effort. This action demonstrated that Congress understands what the President clearly does not, that the Forest Service's Forest Research and State and Private Forestry efforts have already taken more than their share of budget cuts. This subcommittee deserves credit for withstanding this budget assault, Mr. Chairman, and we urge you to continue this "steady state" funding trend for FY 1989.

The mission of the Forest Research program is "to develop knowledge and technology that increases economic growth and environmental capabilities on all of America's forest and range lands." Yet the current Administration has generally failed to support the strong, integrated, and multi-disciplinary research programs necessary to meet this challenging mandate. As the 1985 RPA Update notes, "The management program planned for the National Forest System depends in part on a continuing flow of new technology from Forest Service research. The ability to meet planned output levels is directly related to early investments in research." But, while the President seeks to impose a National Forest management strategy that emphasizes outputs, he ignores the importance of maintaining the strong research effort necessary to protect the health and productivity of our National Forest System.

Between 1979 and 1989, if the Administration's budget were to be adopted, the real purchasing power of the Forest Service Research budget would decline by 18.7%. Fortunately, Congress has consistently disagreed with the Administration's shortsighted priorities, adding both dollars and programs. Many of these important Congressionally-supported restorations and initiatives are once again threatened by the 1989 budget proposals, including:

Air pollution: AFA supports an active emphasis on Forest/Atmospheric Interactions as a research initiative for 1989. The National Atmospheric Precipitation Program (NAPAP) expires in 1989, and it is important that groundwork be put in place to continue this important forest health research. In spite of his apparent emphasis on this research, however, the President proposes reduced funding for the atmospheric deposition-related national vegetation survey and would reduce, delay, or postpone other projects designed to determine the impact of atmospheric deposition on aquatic ecosystems. Because of the serious threat that air pollution poses to forest health, the AFA Forest Health Task Force has focused much of its intitial first year efforts on pollution research and controls. The Task Force has determined that air pollution does indeed pose a threat to the forested ecosystem, and that an expanded program of forest health research is needed to accurately assess this threat. We therefore recommend, at a minimum, the restoration of the air pollution research effort to current levels. (We have released the findings of the Task Force as an AFA White Paper on the Forest Effects of Air Pollution, and are submitting copies with our statement today.)

Insect and Disease Research: Last year at this time AFA testified that while incredible damage is being done by the gypsy moth, mountain pine beetle, spruce budworm, and other pests, the President's FY 1988 budget proposed a reduction of effort of almost 8%. We need to know how to manage forests so as to prevent unusual and unmanageable pest outbreaks, and we need answers that do not create new environmental or health hazards in the process. This understanding is absolutely vital to the future of America's forests, and research is the answer; which is why we are pleased to note -- and support -- the proposed expansion of this research effort in FY 1989.

# STATEMENT OF THE INTERNATIONAL ASSOCIATION OF FISH & WILDLIFE AGENCIES

The International Association of Fish and Wildlife Agencies, founded in 1902, is a quasi-governmental organization of public agencies charged with the protection and management of North America's fish and wildlife resources. The Association's governmental members include the fish and wildlife agencies of the states, provinces and federal governments of the U.S., Canada, and Mexico. All 50 states are members. The Association has been a key organization in the promotion of the principles of sound resource management and the strengthening of federal, state and private cooperation in protecting and managing fish and wildlife and their habitats in the public interest.

U.S. FISH AND WILDLIFE SERVICE. The Association continues to be concerned with the inflated figures projected each year for the Sport Fish Restoration Account. Because of this and budgetary pressures, it is our understanding that legislation may later be used to make Indian tribes directly eligible for Wallop-Breaux monies. The Association is strongly opposed to any such measure. Indian tribes are eligible under the current federal aid rules administering the Act and we suggest that the Secretary of the Interior urge more tribes to engage in practices that make them eligible under those regulations. This account is an immensely successful 36 year old dedicated trust fund with a permanent appropriation of the receipts paid by boaters and fishermen. Its use is for the improvement of the fishery resource and for the public's recreational enjoyment of that resource. They are not intended to create commercial and/or subsistence fisheries or fisheries of limited public access.

The Administration's 1988 budget would eliminate endangered species grants under Section 6 of the Endangered Species Act. The premise of that 1973 legislation is to sustain a state-federal effort that restores endangered species to safar population levels. The federal government usurped state authority over endangered species in that Act, and in return promised to assist the states through a grant program. Again, the federal government is reneging on that agreement by withholding financial support. The Association recommends that the Federal Government Service continue to carry its share of the endangered species restoration burden by funding its state grant program at $6 million, and that the Service's endangered species recovery program be funded at the 1988 level.

The Association recommends that the Service's participation in the anadromous fish restoration program be funded at the $4 million level. Ongoing anadromous programs on the Gulf, East and West Coasts involve fisheries of interstate significance, some of which are species suffering stock depletion and demanding interstate restoration efforts coordinated by the Fish and Wildlife Service. These species include chinook, coho and steelhead on the West Coast; striped bass in the Gulf; and shad river herring, striped bass and Atlantic Salmon in the East Coast. The Atlantic and Gulf stocks of striped bass are suffering serious population declines. Five hundred thousand dollars of these funds would assist research on this species under the Emergency Striped Bass Act.

The Service is not receiving adequate funds to meet current operational requirements for the National Fish Hatchery System. As a minimum, the Association recommends $886,000 over the 1989 request for this purpose. Proposed decreases in the anadromous and Inland/Great Lakes hatchery programs, which include the BIA operations decrease, will severely hamper hatchery operations.

The Association again recommends that the Bears Bluff Field Station be fully rehabilitated over the next 6-year period. This unit can make a significant contribution to the Service's fisheries goals and objectives through the propagation of both species of Atlantic sturgeon and for striped bass restoration. The FY 1989 budget should include $1.2 million for the first phase of rehabilitation. These initial monies will begin enhancement of the unit's existing operation and add two additional FTEs necessary to fully staff the facility.

In recognition of the Service's stewardship responsibilities on lands and waters under its direct administrative control, Fisheries Assistance is preparing management plans, consistent with purposes for which each refuge was originally authorized, for those refuges providing significant fishery values. Implementation of these plans has not kept pace. The Association recommends that $200,000 be added to the Service's request for a total of $500,000 to continue implementation of fishery plans on the National Wildlife Refuge System.

The President's budget requests $31.9 million from the Migratory Bird Conservation Fund to support the North American Waterfowl Management Plan. The need for that program in FY 1989 is $61.9 million. The Emergency Wetlands Act of 1986 provides that the Land and Water Conservation Fund may be used for migratory bird habitat acquisitions.

Under that authority the Association recommends that $62 million be appropriated from the Land and Water Conservation Fund for initial implementation of the North American Waterfowl Management Plan's six joint ventures. These funds are necessary to meet 1989 habitat goals delineated by the Plan which was signed by the U.S. and Canada in May of 1986. This ambitious plan will preserve millions of acres of wetland habitat for all types of migratory waterfowl and most wetland related fish and wildlife.

The Association recommends that Migratory Bird Conservation Funds should be used to meet other refuge acquisition needs.

In addition, the Association recommends that $20 million be appropriated from the Land and Water Conservation Fund to acquire top priority National Significant Wildlife Habitats identified by the U.S. Fish and Wildlife Service.

The Association also recommends that $1.2 million be appropriated to the Migratory Bird Office to resolve problems associated with budget cuts in past years and to place its program in a position to generate information required to improve management of waterfowl populations and habitats.

The Association strongly recommends that the Refuge Revenue Sharing Act be funded at the $13.5 million level. The Service has meet only 1/2 of its tax payment obligations to local governments and this failure continues to interfere with wetland acquisition by the federal government.

The Association recommends that authority under the Wetland Loan Act be exhausted by appropriating the $2.6 million remaining for general refuge acquisition in FY 1989. This program was initiated to allow the Service to carry its end of a federal-state wetland acquisition effort for sustaining migratory bird populations. Both federal and state governments have documented the alarming wetland loss of over 500,000 acres/year and the dire implications of this loss to migratory birds, as well as other fish and wildlife and water quality.

The Association recommends that $5 million be provided for the Fish and Wildlife Conservation Act of 1980, which offers matching grants to states for nongame management. Also recommended is an additional appropriation of $1 million for the Service to implement its nongame migratory bird plan. One-half of this money should go to research for nongame and the balance to plan implementation. This represents a portion of the Service's responsibility for implementation of the Act.

The 1989 budget proposal requests $500,000 for waterfowl research. This item covers five areas of research, including an evaluation of the effects of the 1985 Food Security Act. The Association recommends that $200,000 be added to waterfowl research and that the additional $200,000 be used for the Food Security Act evaluation.

The Association requests that $1 million be added for support of existing cooperative fish and wildlife research units. No additional units should be created until a budget level of $6.8 million and full staffing is reached for units currently established.

The Association recommends $565,000 be restored to the Service's research budget to continue publication of the WILDLIFE REVIEW and the FISHERY REVIEW. These are basic and important publications containing listings and abstracts of recent literature for the fishery and wildlife sciences.

The Association recommends that $150,000 be added to the Service's budget for redfish and estuarine research at the National Fisheries Research Center in Gainesville, Florida.

The Association recommends that the Accelerated Refuge Management and Maintenance (ARMM) funds be continued at the 1987 level of $14.3 million. Our national wildlife refuges are not only valuable habitat but valuable educational and recreational areas for millions of visitors. Proper maintenance of water control structures, equipment and other basic features are necessary if the refuge system is to exist.

General maintenance of this Nation's National Wildlife Refuge System is poor. The proposed FY 1989 budget further decreases the funds for maintaining and properly operating the system. The Association recommends refuge operations and maintenance be restored to the 1988 level of $116.3 million.

The Association fully supports the $1.2 million in the budget proposal for restoration of wildlife habitat and identification of wetlands through Section 1242 of the Conservation Reserve Acreage provisions of the 1985 Food Security Act.

The Association strongly supports the Service's $2 million for research on the impact of potential oil and gas development in the Arctic National Wildlife Refuge.

U.S. FOREST SERVICE. The Administration's budget recommends that the National Forest System's wildlife and fish habitat program be financed at $45.4 million for FY 1989.

The Association is pleased with the Forest Service's improved fish and wildlife budget and recommends that Congress continue or increase the following appropriations for the Forest Service's Fish and Wildlife program.

Waterfowl Management. The Association recommends an additional $1 million be used for the Forest Service's role in the North American Waterfowl Management Plan, habitat inventory and planning. Over 12 million acres of waterfowl habitat occurs on National Forests and National Grasslands.

Fisheries Rise to the Future Program. The Association recommends an additional $2 million for this cooperative program with the States, other federal agencies and private organizations. This new cooperative program is showing great promise to improve the fisheries on National Forest System lands. The Service has an aggressive habitat improvement program with a public information emphasis to encourage involvement of conservation organizations for warm and cold water fish.

Anadromous Fish. The Association recommends an additional $2 million. The Service must continue its coordinated management and work for restoration and management of key salmon and steelhead habitat on National Forests in the Great Lakes area, the Pacific Northwest, and Alaska.

Challenge Cost-Share. Over 200 cooperators were involved with the Forest Service in this program in FY 1987. They varied from large national conservation organizations, states, other federal agencies, local sportsman's clubs, and individuals. Projects are completed in wildlife, fisheries, and threatened, endangered and sensitive species habitat improvement. Besides improving habitat, this program results in strengthening partnerships with the public. The Association recommends that this innovative and successful program be funded at the $5 million level.

Mitigation Due to Timber Sales and Road Construction - A national initiative for wildlife and fisheries habitat management is needed to mitigate previous resource activities which decreased habitat capability. The initiative should be implemented throughout the National Forest System. Funding for this type of activity has received low priority as wildlife and fisheries has been funded over the past several years at approximately 50% of the high bound program in RPA. The Association recommends $2 million be made available for mitigation funding.

The 1988 budget proposal eliminates all financial assistance to the states except for the cooperative pest action program, certain fire protection grants and the Boundary Waters Canoe Area. This would eliminate cooperative funding to the states for forest management assistance.

This would end a cooperative and productive relationship of more than half a century that has had a profound effect on the nation's private forests and the amenities they offer--particularly wildlife resources. Under federal leadership a national trend has developed that has seen wildlife biologists and foresters working closely together. The Association recommends that state and private forestry programs be kept at the FY 88 level of $76.5 million.

BUREAU OF LAND MANAGEMENT. The Administration is proposing an FY 89 reduction in funding of $3.4 million in Fish and Wildlife Habitat Management. This will result in cuts of on the ground projects and further slippage in implementation of existing Habitat Management Plans. The FY 89 budget also continues the long term reduction in personnel allocated to fish, wildlife and plant activities. In FY 80 there were 363, FY 87 256 and FY 89 224 (190 wildlife, 25 fisheries and 9 botanists).

The Association requests restoration of $3.4 million to the FY 89 wildlife habitat management budget. This would prevent any additional personnel loss (35 FTE's) and place increased emphasis on monitoring, implementation of riparian zone policies, fisheries enhancement, green stripping and shrub restoration. These funds could also be used to reduce the backlog of existing Habitat Management Plans that have not been implemented.

The FY 89 budget has no funds for challenge grants (cost-share). The FY 89 reduction has occurred in spite of a BLM estimate that there is a current demand of $3.5 million federal which will be matched with $4.5 million non-federal. The Association recommends this program be funded at the $4.0 million level in FY 89 to match the demand from local and state governments and the private sector.

There is a continued need to fund rehabilitation of large tracts of BLM land burned by wildfire. In the last 10 years two million acres burned in two Idaho BLM districts alone. Cheat grass, a highly flammable annual grass of limited value to both domestic and wild grazing animals, has invaded these burned areas increasing the probability they will burn again. The cheatgrass fire cycle can be broken by proper use of "green stripping" techniques (fire breaks of green or fire retardant vegetation), followed by restoration of shrubs in these plant communities. This program is supported by and provides benefits to both wildlife and livestock interests. The Association is pleased to see $250,000 has been included in the FY 89 budget for green stripping demonstrations but there is a need for research to develop plants suitable for green stripping and shrub restoration. The Association recommends an additional $1.3 million be appropriated for green stripping/shrub restoration research.

The Association supports the BLM request for legislation authorizing the sale of wild horses and burros. The current maintenance costs for this program actually exceeds the BLM budget for wildlife habitat management. This legislation is necessary to maintain the $7.15 million budget reduction for wild horse and burro management and to reach the appropriate wild horse and burro population levels by 1990.

The BLM has asked for an enhancement of $400,000 to increase timber sale offerings and reforestation efforts. One hundred and sixty thousand of the total is to be used to reduce BLM reforestation backlog by 900 acres (from a total backlog of 16,500 acres). The Association supports a program which would reduce the backlog to zero over a 5 year period, a 20% reduction each year, and requests an additional $400,000 be appropriated specifically for reforestation.

The Association supports BLM efforts to increase range monitoring ($500,000) within their grazing management program. Evaluations of the on the ground effects of grazing management plans is essential if range-land is to be maintained in a condition to support both livestock and wildlife use.

The Association believes BLM should attach much more significance and value to the recently completed Fish and Wildlife plan when developing the BLM budget. The plan should be used as an effective tool to drive the wildlife budget process.

NATIONAL PARK SERVICE. The Association recommends that the $45 million FY 89 cut in state-side LWCF funds be restored. The Emergency Wetland Conservation Act of 1986 specified that the LWCF fund could be used for the acquisition and preservation of wetlands through the State Comprehensive Outdoor Recreation Plans (SCORP). Wetland acquisition is a key component necessary to meet the goals of the North American Waterfowl Management Plan--a plan that benefits a diverse range of fish and wildlife and related recreation.

## STATEMENT OF CHARLES C. WEBER, CITY ARBORIST, HUNTSVILLE, AL

As the City Arborist for Huntsville, Alabama, I see urban forestry as an official of city government, as a taxpayer, and as one devoted to protecting and improving our environment, especially our urban trees. This perspective gives me a good understanding of how important federal funding is to all of these interests. In the 1988 USDA Forest Service budget, $2 million is allocated for technical Urban Forestry assistance to State and Private Forestry, and an additional $1 million for Recreation Research. These amounts are less than half of what they need to be. Speaking as a taxpayer, I applaud the efforts of Congress to find and eliminate unproductive items in the federal budget; and I want to share with you the reasons for my conviction that, many times over, Urban Forestry has earned much more funding support than it has received in years past.

Urban Forestry funding provides benefits to every individual in America, yet the cost has been about a penny and a half per citizen per year -- a nickel would still be a bargain for what we get in return. In practical terms, State and Private assistance has bought part of the services of one employee per state, on the average, plus a few regional coordinators in the US Forest Service, with enough money left over to get some work done -- mostly in the form of putting Urban Forestry workers in touch with one another.

This communication is precisely what Urban Forestry people around the country need. As you know, very few problems in our society are truly unique: within any geographical region, the problems imposed by nature are fairly uniform, and the same general problem patterns often show up between unlike regions. Likewise, our legal system is uniform enough so that the problems one city or town faces are sure to have many parallels elsewhere. So we have a choice -- either each town can solve all its own problems with its own resources -- we can re-invent the wheel over and over, or else we can allocate a certain amount of our resources to pooling our efforts and sharing what we learn.

From my own experience, this is something that Urban Forestry excels at, and Forest Service funding is at the heart of it -- sharing ideas among the few hundred professional urban forestry workers and the thousands of unselfish lay-persons committed to the goals of Urban Forestry. Almost every day I either call someone for help, or I receive a call from someone who needs the benefit of Huntsville's experience.

First, let me give you a local example of how this sharing works. About eight years ago, a group of citizens in Huntsville convened to develop a proposal for a city tree ordinance. To accomplish this, they solicited ideas from about two dozen cities across the U.S. No sooner had it been adopted than we began receiving requests from other cities, not only in Alabama but in many states -- cities of all sizes from a few hundred residents to several hundred thousand.

This was the beginning of an information-sharing network, which started out as an informal list, and grew to a modest computer database called "NU-TreeNet" (National Urban Tree Network). With help from the U.S. Forest Service, the American Forestry Association, various city and state forestry programs, and many individuals, NU-TreeNet has shared information on 29 general topic areas with over 125 other cities in the U.S., Canada, and England. All this at no cost besides a few computer disks, a little paper, a few envelopes, and some postage money.

We now see that this is part of a dramatic larger-scale change in the very nature of tree science in the past decade or so. But this change is slow -- even now, many urban tree-specialists operate on an obsolete technology that originated in the 19th Century and earlier, largely through false parallels between human medicine and tree care. As recently as 1982, the standard tree-maintenance text was a ten-year-old revision of a book written in 1941, giving intricate details for maintenance operations which (though highly profitable) are now known to be detrimental to tree health. But there is arising an improved technology, much of which was developed by scientists of the USDA-Forest Service and disseminated through its Urban Forestry programs; and using it many public and private tree-managers are re-evaluating and renovating their practices along lines that improve tree health, promote safety, and improve the long-term cost-effectiveness of maintaining trees.

One Alabama contribution to this re-education process is a 20-minute video tape, aimed at improving the quality of public and private tree maintenance, and intended for distribution at little or no cost. This video tape was produced by the Huntsville Tree Commission, a private tree-service company, a commercial television station, the city's utility company, an insurance company, and others, all coordinated by the Alabama Forestry Commission using a small USFS Urban Forestry grant.

A second related project is a tree-maintenance training outline being developed by the Huntsville Tree Commission -- again, with the Alabama Forestry Commission. Presented last fall in preliminary form to Arlington County (Virginia) Public Works employees, this nearly-completed outline is adaptable for a wide range of audiences. It has been scheduled for additional test runs in Florence and Huntsville before publication and distribution across the Southeast.

I have described these successes to you to demonstrate that money in the Urban Forestry program gains leverage: it stimulates, supports, and disseminates the efforts of state and local urban forestry people with a common goal. The results far exceed what would come from putting large sums into single project grants. Urban Forestry money is the trigger that releases the enthusiasm and captures the creativity of thousands of women, men, and children across the country in an effort that contributes to our national inheritance while it stimulates local pride.

The goal of Urban Forestry is to foster trees, and the values related to them -- to reflect the best traditions of our past to an urbanizing populace. Far beyond their direct ornamental and environmental benefits, the trees of a city also provide what, for many of us, are our last roots with the land -- a much-needed source of perspective and clarity of vision, affecting how we act from day to day, and how we plan for the future. This work deserves all the support you or any of us can give.

Thank you for this opportunity to submit a statement for the record.

## SUBCOMMITTEE RECESS

Mr. ESTES. The subcommittee has no questions.

On behalf of Senator DeConcini, that concludes the outside witness hearing today, and the subcommittee will stand in recess until 8:30 on May 23, when we will receive testimony from congressional witnesses, the Secretary of the Interior, and the Secretary of Energy.

[Whereupon, at 3:40 p.m., Monday, May 9, the subcommittee was recessed, to reconvene at 8:30 a.m., Monday, May 23.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

MONDAY, MAY 23, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 8:30 a.m., in room S–128, the Capitol, Hon. Robert C. Byrd (chairman) presiding.

Present: Senators Byrd, DeConcini, Reid, McClure, and Cochran.

## DEPARTMENT OF THE INTERIOR

### OFFICE OF THE SECRETARY

### STATEMENT OF DONALD P. HODEL, SECRETARY

**ACCOMPANIED BY:**

**ANTHONY L. ITTEILAG, DIRECTOR OF BUDGET**

**RICK VENTURA, ASSISTANT SECRETARY, POLICY, BUDGET AND ADMINISTRATION**

**JOSEPH W. GORRELL, PRINCIPAL DEPUTY ASSISTANT SECRETARY, POLICY, BUDGET AND ADMINISTRATION**

### PREPARED STATEMENT

Senator BYRD. The subcommittee will come to order.

This is the time scheduled to continue our review of the fiscal year 1989 budget estimates for the agencies funded in the Interior and Related Agencies appropriation bill.

This morning we will hear from the Secretary of the Interior, and, I believe, also a number of Members of Congress are scheduled to appear.

We will begin with Mr. Donald P. Hodel.

I welcome you again before the subcommittee, Mr. Hodel. If you wish to introduce any of your associates, you may do so.

I understand that your statement is 28 single-spaced pages long. Perhaps you will summarize it for us and; as it is our custom, we will insert your complete statement in the record as if delivered.

So why don't you begin.

[The statement follows:]

## STATEMENT OF DONALD PAUL HODEL

I am pleased to appear before you today in support of the President's FY 1989 budget for the Department of the Interior.

The measures in this budget reflect the Department's continuing commitment to ensure that the Nation's public lands and natural resources are wisely used and protected for the economic and environmental well-being of the Nation and that essential services to the public are maintained. The Department's 1989 budget is consistent with Presidential and Congressional efforts to reduce the Federal deficit in accordance with the Balanced Budget and Emergency Deficit Reduction Act (Gramm-Rudman-Hollings), as amended by P.L. 100-119, while maintaining the integrity of essential operating programs and the priorities of this Administration. Together with other 1989 requests for domestic discretionary funding by the Administration, the 1989 budget meets the targets set forth in last year's Bipartisan Budget Agreement.

### FY 1989 Budget Totals

The 1989 Interior Department budget totals $6.6 billion in budget authority, a decrease of $589 million from the 1988 estimate. Outlays in 1989 are estimated to be $6.8 billion, a $355 million reduction below the 1988 estimate of $7.1 billion.

Total receipts resulting from activities of the Department are estimated to be $6.4 billion in 1989, $1.3 billion above the current estimate for 1988. Of the $6.4 billion in 1989 receipts, $1.8 billion offsets the total budget authority request ($6.6 billion), resulting in net budget authority of $4.8 billion.

Excluding the Bureau of Reclamation budget, which is considered by the Energy and Water Subcommittees, the 1989 request for programs under the jurisdiction of this subcommittee is $3.96 billion, a reduction of $471 million from the 1988 estimate of $4.43 billion.

Let me add a technical note about how I will be talking about 1988 appropriations levels. When I speak of 1988 appropriations or 1988 enacted, I am referring to the amounts appropriated in the FY 1988 Interior and Related Agencies Appropriations Act and the FY 1988 Energy and Water Development Appropriations Act. When I speak of 1988 estimates, I am referring to the 1988 appropriations level as adjusted for subsequent transfers. In general, these transfers are to pay back accounts from which funds were transferred in 1987 to pay for emergency fire costs.

### Budget Overview

The 1989 budget for the Department of the Interior meets the multiple operating responsibilities of the Department. The budget is predictable in that it is consistent with the priorities of previous budget requests of the Administration. Specifically, the budget emphasizes support for operating programs, such as operations of the National Park Service and the Fish and Wildlife Service, land management responsibilities of the Bureau of Land Management, revenue collection programs (principally of the Minerals Management Service), high priority research activities of the Geological Survey and the Bureau of Mines, water development construction projects, including operation and maintenance of existing projects, of the Bureau of Reclamation, and important activities of the Bureau of Indian Affairs and the Office of Surface Mining Reclamation and Enforcement.

As the result of emphasizing basic operations, funding for lower priority programs is proposed to be decreased. The most significant of these reductions are construction activities of the National Park Service (NPS), Fish and Wildlife Service (FWS), Bureau of Land Management (BLM), and Bureau of Indian Affairs (-$122.1 million); land acquisition activities of NPS, FWS, and BLM (-$103.6 million), and NPS historic preservation grants (-$28.2 million).

I would now like to discuss some of the important activities in the Department and the budget implications of these activities.

## National Park Service Operations

For the past several years, the Department and the Congress have made significant efforts to protect and enhance basic operations. The National Park Service (NPS) has been a primary focus of this effort. The 1989 request includes $733.8 million for all NPS operations. This is an increase of $3 million above the 1988 enacted level, $13 million above the 1988 estimate, and $18.9 million above the 1988 President's Budget. Support for park operations as a percentage of Departmental funding (current accounts only) has grown significantly -- from 8.8 percent in 1980 to 14.8 percent in the 1989 request. Moreover, in constant dollars, Park Service funding for operations has increased by 29 percent since 1980.

In the Budget Reconciliation Act passed in December 1987, the Congress approved permanent authority for NPS to collect and use recreation fees. These fees are collected in one year and then made available for appropriation in the following year to enhance park operations. In 1988, the Service estimates that it will collect $52.2 million. The budget proposes that this amount be appropriated in 1989. The fees, which augment direct appropriations for park operations, represent 8.7 percent of park management funding for NPS in 1989. Revenue from recreation fees is allocated among the parks according to the amount of fees collected (50 percent), the size of the operating budget (40 percent), and need as determined by the Director of the Service (10 percent). In accordance with the provisions of the Reconciliation Act, resource protection and interpretation will benefit the most from additional funds.

## Fish and Wildlife Service Operations

As with the Park Service, the Department is emphasizing operations funding for the Fish and Wildlife Service. The 1989 request for Service operations totals $331.9 million. This is a decrease of $10.7 million below the 1988 enacted level and $7.9 million below the 1988 estimate, but an increase of $30.8 million above the 1988 President's Budget. The 1989 request will maintain wildlife refuge and fish operations. Reductions are due primarily to a decrease in the requested level of emergency firefighting, the proposed transfer of certain fish hatchery operations to the Bureau of Indian Affairs and a proposal not to fund several grant programs.

## Bureau of Reclamation's New Direction

Although the Bureau is not within the jurisdiction of this Subcommittee, I would like to describe in a general way the proposals included in the 1989 Budget concerning the Bureau's new direction. The Assessment '87 report issued by the Bureau of Reclamation in October 1987 concluded that the original mission of the Bureau has been largely accomplished and the end of the era of construction of large dams and water projects is approaching. The 1989 budget takes steps to implement the assessment report's recommendation that the Bureau's focus should change from water project construction to water resources management and that the Bureau should provide opportunities to participate with non-Federal partners in water development projects with appropriate cost sharing.

## Bureau of Indian Affairs

The Department believes that some Indian tribes are ready to assume greater management responsibilities over funds provided by the Bureau of Indian Affairs (BIA). At the special hearing in October, 1987, before the House Appropriations Subcommittee on the Department of the Interior and Related Agencies, several tribes expressed interest in the design and implementation of comprehensive tribal budgets for all programs funded by BIA. The 1988 appropriations for the Bureau included $1 million for initial planning along these lines by 10 tribes. In 1989 the Department is proposing appropriation language that will allow these 10 tribes to implement their comprehensive budgets. Based on the results from the initial planning, other tribes may also be able to participate in this program during 1989. As of May 1988, planning grants of $100 thousand each have been awarded by the BIA to eight of the ten tribes.

As part of its intensified efforts to prevent and ameliorate social problems on reservations, the Bureau will provide $3.9 million in 1989 to continue the Drug and Alcohol Abuse Prevention program, providing for education programs, judicial and law enforcement training, and a Drug Abuse Coordination Office. BIA will also provide $1.5 million toward protection efforts against child abuse and neglect on reservations.

The Bureau will continue to address unemployment problems on reservations through its Employment Assistance Readiness Net (EARN) demonstration workfare program. An additional $2 million will be provided for this program in 1989 to support six tribal demonstration projects and two Bureau projects. Tribes will design individual work plans for unemployed Indians to include education, vocational training, alcohol and substance abuse counseling, tribal community college opportunities, and other programs.

In support of the Bureau's goal to develop and implement an "effective schools" process for all Bureau-funded schools, the 1989 budget includes increases of $1.5 million for staff training, exemplary schools, upgrading text books, and a gifted and talented program.

## Hazardous Materials

The Department proposes to increase efforts to address the problem of hazardous materials on Interior lands. The 1989 budget requests $22.6 million for these efforts, an increase of $13.6 million over 1988. The largest increase is in the Bureau of Land Management, which will substantially increase activities to assess and investigate hazardous waste sites and begin corrective actions when required. A Department-wide effort has been undertaken to coordinate and establish priorities for hazardous materials activities across all Interior agencies.

## Employee Housing

The Interior Department currently has 10,600 units of mission-related employee housing, over half of which are estimated to be in need of significant rehabilitation. The Department is investigating private market mechanisms to supply either new or rehabilitated employee housing, particularly mechanisms that would enable employees to own their own homes. Alternative approaches that will be pursued include employee cooperatives, sale or lease of current housing units to employees, private financing of necessary rehabilitation and new construction, and joint ventures with the private sector that would increase the availability of employee housing where it is in short supply. These approaches will yield benefits far more rapidly than Federal financing and avoid the conflicts inherent in the employees' supervisor also being the landlord. If legislation is needed for this initiative, it will be submitted to the Congress. At any rate, we plan to keep you informed of progress on this initiative.

## Other Budget Proposals

The 1989 budget includes a number of other significant budget proposals which I would like to summarize.

Arctic National Wildlife Refuge: The 1989 budget for the Fish and Wildlife Service provides $2 million for research in support of oil and gas leasing in the Arctic National Wildlife Refuge (ANWR). Research study areas include water quality and quantity, wildlife, waterfowl and fish protection, and habitat protection. The budget assumes that leasing in ANWR will begin in 1990, subject to Congressional legislative approval. This scenario is based on the Congress enacting ANWR legislation in 1988 and a lease sale occurring within two years. Exploration could begin in 1991 and continue through 1994. If commercial quantities are found, development could start in 1995 and production could begin in 1999. On this basis, the following are projections of receipts included in the 1989 budget:

| Year | Bonuses | Rents |
|---|---|---|
| 1989 | -- | -- |
| 1990 | $2.1 billion | $600,000 |
| 1991 | -- | 600,000 |
| 1992 | 1.3 billion | 1,200,000 |
| 1993 | -- | 1,200,000 |

Revenue projections assume a lease sale in 1990 and a follow-up sale in 1992 before exploration results add significant new information. Because this scenario assumes that production could not commence until 1999, royalties are not included. The projections also assume that the entire area authorized under Section 1002 of the Alaska National Interest Lands Conservation Act is available for leasing.

Land Acquisition and Exchanges: Land Acquisition funds are limited to $17.8 million in the 1989 budget for the National Park Service, Fish and Wildlife Service, and Bureau of Land Management. In addition, $29.4 million in receipts from the Migratory Bird Conservation Fund, a permanent appropriation, will be used for wetlands acquisition. This level of funding represents Administration policy that discretionary land acquisition be postponed due to higher priorities elsewhere in the Department. The $17.8 million is a decrease of $103.6 million compared to 1988 appropriations of $121.4 million.

Land exchanges have been and will continue in 1989 to be considered as an alternative to fee purchase and to preserving priority habitat and park lands. Exchanges will be carried out where the resulting ownership will increase net benefits and where exchange is the most efficient means of acquisition. Since 1980, the National Park Service has participated in approximately 200 exchanges involving 215,000 acres valued at $55 million. Similarly, the Fish and Wildlife Service has participated in about 100 exchanges involving 86,000 acres valued at $21 million.

Non-Reclamation Construction: The Department has invested more than $1.8 billion in construction since 1980, excluding Bureau of Reclamation projects. Given this large investment and the need to meet deficit reduction goals, the 1989 request for non-Reclamation construction programs is $79.4 million, $122.1 million less than the 1988 appropriation level ($201.5 million) for the National Park Service, Fish and Wildlife Service, and Bureau of Indian Affairs. No funds are requested in 1989 for Bureau of Land Management construction.

Hetch Hetchy: I am sure that you know of my keen personal interest in this subject. The Department has done preliminary explorations of whether or not it is possible to restore Hetch Hetchy Valley in Yosemite National Park. In 1989, the National Park Service is requesting $600 thousand for further studies. Of this amount, $450 thousand will be used by the Bureau of Reclamation to examine engineering options to replace the water and power now provided by the reservoir and $150 thousand will be used by the Park Service to examine restoration of the Valley. A total of $35 thousand has been spent to date on this project.

Firefighting: The Department's 1989 request includes $91.5 million for fire management and emergency fire suppression and pre-suppression costs. Of this amount, $72.1 million is proposed to repay 1988 emergency fire costs for which transfers will be made using the Secretary's transfer authority in section 102 of the Interior and Related Agencies Appropriations Act. In prior years, these transfers have been repaid through supplemental or other appropriations. This year's "up-front" request recognizes the approach that the Congress has been moving toward in recent years and will reduce the necessity for the Department to request large supplementals each year. The amount of the 1989 request, based on an average of several past fire years, is $48.1 million for the Bureau of Land Management, $18.7 million for the Bureau of Indian

Affairs, $4.5 million for the National Park Service, and $800 thousand for the Fish and Wildlife Service.

Abandoned Mine Reclamation Fund: The Department's 1989 request for non-matching state reclamation grants is $129.7 million, a decrease of $30 million from the 1988 estimate. The decrease is proposed since a considerable amount of funding previously awarded to the states is unobligated and thus remains available for reclamation projects. When projected carryover from the 1988 program is combined with the proposed level of funding for 1989, states will have access to nearly $364 million during 1989. Even if the states obligate as much ($200 million) or more than estimated for 1988, sufficient funding is available to provide full administrative support and allow the states to continue reclamation contracts already in progress, as well as provide the resources to plan for future land reclamation projects.

Royalty Management: The 1989 budget includes an increase of $4.4 million to extend automated production reporting to all 24,000 onshore Federal and Indian oil and gas leases. This program will identify potential royalty under-payments through the automated comparison of sales reports which are submitted by royalty payors with production reports which are submitted by lease operators. Similar reporting on Outer Continental Shelf leases has resulted in $18.6 million in increased collections in 2.5 years.

Automated Land and Minerals Record System (ALMRS): The ALMRS project constitutes a 10-year effort by the Bureau of Land Management to modernize, protect, and efficiently store and use public land records, such as master title plats, historical indexes, serial register pages, and patent records. Once the system is fully implemented, it will significantly reduce the time involved in processing land and minerals casework, improve service to the public by expanding the usefulness and accessibility of data, and provide greater speed and flexibility in maintaining status records. The 1989 request includes $23 million to continue systems development. During 1989, the general systems design will be completed and contracting for combined hardware/software development will begin. Collection and automation of data will continue, with emphasis on geographic coordinate and land status data.

Bureau of Mines Research: The 1989 budget of $127.3 million for the Bureau of Mines includes a redirection of funds to expand activities in several important areas, including advanced materials ($6 million), mineral waste management ($6.7 million), robotics and automation ($5 million), innovative mining technology ($4 million), mineral land assessments ($7.6 million), and analysis of regulatory issues ($1.7 million). The combination of these enhanced efforts will provide greater knowledge and new technology to minimize health and safety hazards in mines, develop more cost effective environmental controls, and stimulate efficiency, productivity, and competitiveness. However, overall funding for the Bureau of Mines will decrease by $19.8 million because of de-emphasizing lower priority research.

Geological Survey Research: The 1989 budget for the Geological Survey totals $425 million. It includes a $4.5 million increase to continue the transition of map production to an advanced digital cartographic system that takes advantage of innovative computer technologies in cooperation with the Department of Defense and an increase of $3 million to conduct scientific investigations of the Exclusive Economic Zone which includes more than 3 billion acres of submerged lands. Additional verification of GLORIA sonar surveys will be initiated in California, Oregon, Washington, the Gulf of Mexico, Puerto Rico, the American Virgin Islands, and the East Coast. Funds are also included at the 1988 level of $7.2 million to continue seven pilot studies of the National Water Quality Assessment program. The pilot effort will develop and test methodologies to provide a better understanding of the causes of water quality conditions and provide consistent information about water quality for Federal, state, and local managers. Overall, other research of the Survey has a lower priority, resulting in a net decrease of $23 million in 1989.

Receipts for Sport Fish and Wildlife Restoration: For 1989, receipts from taxes authorized for the Sport Fish Restoration program of the Fish and Wildlife Service are estimated to continue to increase sharply to $195 million, an increase of $34 million over the 1988 level of $161 million, and most significantly, an increase of $157 million over the 1985 level of $38 million. For the Service's Wildlife Restoration program, receipts from taxes for 1989 are estimated to be $119 million, an increase of $4 million above the 1988 level of $115 million, and an increase of $33 million above the 1985 level of $86 million.

Sharing of Net Receipts: State shares of onshore mineral leasing revenues (generally 50 percent; Alaska 90 percent) and Western Oregon timber receipts are currently computed on a gross basis, without taking into account the costs of obtaining and distributing these receipts. These administrative costs are now borne entirely by the Federal Government. In keeping with the 1988 Bipartisan Budget Agreement, the 1989 budget does not propose to change this method of distributing receipts; however, the budget assumes that beginning in 1990, Federal costs of managing and administering onshore mineral leasing and Western Oregon forest management will be deducted from total revenues and that receipts will be shared based on the resulting net amount.

Safety of Dams: The 1989 budget continues to emphasize Department-wide priorities that address the most critical needs for improving the safety of dams on Interior lands. The 1989 request includes $85 million for the Bureau of Reclamation, the National Park Service, the Fish and Wildlife Service, and the Bureau of Indian Affairs. This is a reduction of $11 million below the 1988 level, primarily because of the completion of the most costly aspects of work on two Bureau of Reclamation dams (Fontenelle and Jackson Lake) in 1988.

Compact of Free Association Implementation: The 1989 budget reflects continued implementation of the Compact of Free Association. Implementation of the Compact for the Republic of the Marshall Islands and the Federated States of Micronesia (FSM) began during 1987, and we hope that Compact implementation for the Republic of Palau will occur during 1988. The 1989 budget includes $34.9 million for continuation of certain mandated Federal programs and services for the Marshall Islands, FSM, and Palau, an increase of $1.3 million above the 1988 estimate. All other Compact funding was permanently appropriated in 1986. In 1989, permanent appropriations for the Compact will decrease as scheduled by $146.9 million, from $291.1 million in 1988 to $144.2 million. Payments in 1988 were considerably higher than proposed for 1989 because of up-front funding of $84 million in investment development funds for the Marshalls, FSM, and Palau, along with certain one-time grant payments for Palau.

Klamath River Basin Restoration: The 1989 budget includes a $1 million increase for the Fish and Wildlife Service for the Klamath River Basin Restoration program for initial program development, studies, and surveys. This 20-year cooperative effort among the Federal Government, the states of California and Oregon, area Indian tribes, and local industry seeks to restore and promote anadromous fish resources of the Klamath River Basin.

El Malpais: In 1987, the Congress established El Malpais National Monument (managed by the National Park Service) and El Malpais Conservation Area (managed by the Bureau of Land Management - BLM). The 1989 request includes $150,000 for Park Service operations and $200,000 for BLM responsibilities at these sites.

Bureau of Land Management Recreation and Cultural Resources: The 1989 request for BLM recognizes the growing importance of recreation and cultural resource activities on public lands. The request of $24.2 million includes support for 20 additional rangers provided in 1988 for the California Desert Conservation Area, as well as providing additional visitor services and resource protection in special recreation areas. Cultural resource management priorities for 1989 include continued surveillance and detection in priority areas, such as the Four Corners area and the Pacific Northwest; support for public awareness and education, such as the Anasazi Heritage Center; and increased physical protection in sensitive areas, especially the Chacoan protection sites and the California Desert, King Range, and San Pedro Conservation Areas.

## Management Improvements

The Department has carried out and is actively pursuing a wide range of initiatives aimed at improving the efficiency and effectiveness of its operations, organizations, and services. I would like to summarize some of these.

Financial Integration Review for Management: The budget for the Geological Survey includes $2 million for 1989 to continue implementation of the Financial Integration Review for Management (FIRM) system. This system will provide better accounting data and management information. In 1987, the Survey was designated as the Department's lead agency for the acquisition and implementation of a single administrative accounting payment system for all Interior bureaus. During 1988, the Survey and the Bureau of Reclamation will install and test system modules. Implementation of the new system for these two bureaus is scheduled for October 1988. The following additional bureaus will be brought onto the system in October 1989 and have included funds for this purpose in their 1989 budget requests: Bureau of Land Management ($1.3 million), Fish and Wildlife Service ($0.6 million), National Park Service ($1.5 million) and Bureau of Mines ($0.5 million). In addition, the Bureau of Indian Affairs has included $1 million to initiate conversion activities in 1989.

Office of Construction Management: An emphasis on improved management of the Bureau of Indian Affairs facilities program will continue in 1989. The Office of Construction Management (OCM), with a budget of $1.8 million in 1989, has developed a plan to address five key Congressional concerns with the facilities program. First, efforts are now underway to increase obligation and procurement rates in the facilities improvement and repair program through improved planning procedures, cost estimating, and monitoring. Second, plans to reduce excess space in the Bureau's facilities will be pursued through cooperative efforts of program managers and property management staff. Third, a final draft of a comprehensive report on BIA education is now available for tribal and Congressional review this year. Fourth, during 1988, OCM has implemented a reorganization of the Bureau's Office of Facilities Management in order to gain more efficient and responsive management. Finally, a formula is being developed to allocate Bureau operations and maintenance funds which considers actual utilization and is based on educational and financial data.

Productivity Enhancement Funding: The Department has initiated a program to finance innovative, low-cost, high-payback projects to improve the efficiency, quality, and timeliness of operations. The first request for proposals resulted in more than 140 submissions, 21 of which have been approved. These projects involve employee-developed innovations which will save $11 million over the next three years, for an average up-front investment of less than $40 thousand per project. The 1989 budget proposes $500 thousand for a Departmental fund to match bureau investments in new projects. This will double the capacity of this year's program and provide a greater incentive to increase participation.

Reducing Overtime Costs: The Department recently launched an effort to reduce overtime costs that began with a detailed analysis of overtime expenditures, which total about $52 million each year. Of this total, approximately $10 million was for fire suppression, which is an uncontrollable overtime expenditure. Following the analysis, the Department developed overtime goals and increased monitoring of overtime expenditures. As a result, the Department reduced overtime by $4.1 million in the first year of the program, even with a $3 million increase in overtime for fire suppression. Without the fire suppression increase, the Department's reduction would have been more than $7 million.

Better Management of Workers' Compensation Costs: Workers' Compensation costs the Department about $25 million each year. The Department recently initiated efforts to control and reduce these costs. A rehabilitation/rehire program has been pilot-tested and will require a restructuring of jobs to match the available skills of people injured on the job with work they can do in order to provide them meaningful employment. This will return people who want to work to the Department's rolls and is expected to save between $1 and $2 million annually in these costs.

Unemployment Compensation: During 1985, the Department became aware that more effective management of its unemployment compensation process was necessary. After an analysis of the process and evaluation of the alternatives to improve that management, it was decided to utilize the services of an existing contract awarded by the Department of Agriculture. Utilizing this contract allowed Interior to move quickly and to save contracting costs. Through the contractor's efforts the Department has avoided approximately $4 million of costs during calendar years 1986 and 1987. The contract has had over a 50 to 1 payback ratio. Moreover, the process has become more efficient since employees and the states know that a contractor is monitoring for inappropriate claims. The contractor provides the service of determining if the unemployment compensation claim is appropriate under the laws of the state in which it is filed, matches billing information with payroll data to ensure that Interior is not paying for someone else's claims, appeals claims for the Department, trains Departmental personnel, and provides management reports.

## Funding for Pay Raise and Retirement Costs

Costs of the January 1988 pay raise of 2 percent are about $34 million in 1988 and $45 million in 1989. Costs of the Federal Employee Retirement System (FERS) authorized by P.L. 99-335 are about $43 million in 1989. Costs of FERS in 1988 were previously estimated at $109 million and provided for in the 1988 Continuing Resolution (P.L. 100-202). Projected costs for 1988 are now lower than previously estimated as a result of changes in actuarial, switch rate, and thrift plan assumptions used to calculate agency contributions throughout government. Actual experience indicates, for example, that the switch rate from the Civil Service Retirement System to FERS is significantly lower than the initial 40 percent assumption. It is now assumed to be 5 percent.

A proposal has recently been forwarded to this Subcommittee to reprogram $43.5 million from the amounts enacted for FERS to cover most of the January 1988 pay raise in 1988 and to cover unanticipated increases in fixed costs. An additional $12.7 million is available for future reprogramming.

## Receipts

Fiscal year 1989 Interior receipts are expected to total $6.4 billion, an increase of $1.3 billion compared to 1988. This projected increase is due primarily to the anticipated release of $0.9 billion in principal and interest from an Outer Continental Shelf (OCS) escrow account in 1989.

The escrow release anticipates a Supreme Court decision in 1989 determining the location of the Federal/state boundary off the coast of Alaska, which will permit the release of the Federal share of the Section 7 escrow funds including interest. No escrow releases are projected for 1990 and beyond, as all escrowed funds from OCS leasing will have been released. Pursuant to a provision in the 1988 Continuing Resolution, a 27 percent share of the Section 7 escrow was paid to Alaska on December 31, 1987.

Interior receipts from most other sources are expected to increase from 1988 to 1989. OCS rents and bonuses (from current sales) and royalties are expected to be about $3.5 billion, an increase of $0.3 billion over the current estimate for 1988; onshore mineral leasing receipts will be approximately $1.0 billion or about $50 million more than 1988. All other receipts will be $1.1 billion, or approximately the same as 1988.

OCS bonus estimates are based on the current five-year leasing schedule, with two California sales scheduled for 1989.

I would also now like to discuss some of the highlights of the budget request for each Bureau.

## Bureau of Land Management

The Bureau of Land Management (BLM) is responsible for the multiple use management of natural resources on 270 million acres of public lands located primarily in the Western States, including 90 million acres in Alaska. BLM also has the responsibility for mineral leasing and supervision of minerals operations on an additional 300 million acres of Federal mineral estate that underlie other surface ownership.

The 1989 budget estimate for BLM is $729.3 million, a decrease of $45.6 million from the 1988 estimate of $774.9 million (which reflects a net transfer of $73.7 million, primarily to repay funds used in 1987 for emergency firefighting costs) and a decrease of $119.2 million from the enacted 1988 appropriation.

The primary reason for the decrease from 1988 to 1989 is that budget authority for 1987 payments derived from $72.1 million in 1987 receipts, largely timber receipts from Oregon and California Railroad Grant Lands (O&C), was not credited to BLM until 1988, thus overstating the 1988 budget authority for the Miscellaneous Permanent Appropriations account by $72.1 million.

The 1989 estimate for all accounts includes a total of $5.2 million to cover the annualized cost of the January 1988 pay raise and $6.3 million for costs associated with the Federal Employees' Retirement System Act of 1986, P.L. 99-355.

The 1989 BLM program reflects the Secretary's continuing emphasis on the "Take Pride in America" theme. The Bureau will continue to enlist the support of those who use the public lands as well as the direct efforts of volunteers to support resource management programs.

The 1989 BLM budget contains three significant funding initiatives. Funding for hazardous waste programs increases by $6.6 million to $12.4 million. This level of funding will help the BLM to meet its responsibilities under the law and will significantly increase the number of studies of additional potential hazardous waste sites on public lands.

Second, the budget continues the funding for the Automated Land and Minerals Records System (ALMRS), increasing funding by $9.5 million to $23.0 million. The ALMRS project, which will be implemented Bureau-wide beginning in 1993, will reduce the time involved in processing land and minerals casework, improve service to the public by expanding the accessability and usefulness of the data, and protect irreplaceable basic land records. Emphasis in 1989 will be on contracting for development of integrated hardware, software, and user requirements, and on collection of land status and geographic coordinate data.

Third, consistent with requests in the other land managing bureaus in the Department, BLM is requesting up-front funding of $48.1 million to repay the costs of emergency fire suppression and pre-suppression activities in 1988. This approach will continue to use the Secretary's emergency transfer authority under section 102 of each year's appropriation act to transfer funds from no year accounts in order to fund these costs in 1988. The 1989 funding will be used to repay those transfers. This approach is consistent with actions the Congress has taken in recent years to appropriate funds in the regular appropriations bills to repay prior year emergency fire costs. Since it is difficult to predict actual firefighting costs in advance, the request is based on an average of several previous fire years. If additional funds are required, they will be requested.

The 1989 budget request for Management of Lands and Resources (MLR), the Bureau's principal operating account is $464.5 million. This appropriation includes funds for energy and minerals management, lands and realty management, renewable resources management, and their supporting services programs. Most of the net reduction for the MLR account is attributable to a difference in amounts budgeted for emergency firefighting.

Within the MLR account, $75.5 million is requested for energy and minerals management, a net decrease of $5.1 million from the 1988 enacted level. Decreases in several programs are proposed in response to current reduced market demand for commodities such as coal, oil, gas, and geothermal resources. An increase of $1.0 million is proposed for mining law administration to provide increased enforcement of surface management regulations, especially in wilderness study areas, the California Desert Conservation Area, and Alaska.

The request for lands and realty management of $35.8 million is a net decrease of $11.7 million from the 1988 enacted level. The major portion of the decrease, $6.8 million, consists of a shift of the funding for data collection in support of the ALMRS project to the data management activity. This will consolidate all ALMRS-related funding in one place in the Bureau's budget. The remainder of the reductions reflect savings projected in the rights-of-way program due to a decreased number of energy related right-of-way applications, the deferral of lower priority Alaska lands program casework, and significant reductions in the withdrawal review program as a result of the pending suit by the National Wildlife Federation. Additional funding is provided in realty management to deal with unauthorized use of public lands.

The request for renewable resources management totals $122.6 million, a net decrease of $5.2 million from the 1988 enacted level. The wild horse and burro program will decrease by $7.2 million, reflecting an accelerated rate of removal of animals from public lands and reduced maintenance costs due to increased adoption efforts. In addition, the request assumes that Congress will provide BLM with the authority to sell at public auction animals not adopted within 30 days, with receipts retained by the Bureau to offset program costs. However, in light of recent problems the Bureau has encountered with the fee waiver adoption program and recent proposals for sanctuaries, BLM is exploring alternatives that could affect the 1989 estimate. We will keep the Committee informed of the latest developments in this program.

The hazardous materials program increases by $6.6 million to fund activities associated with managing such materials on public lands. The number of land assessments will increase from 40 to 150, preliminary assessments from 34 to 101, site investigations from 8 to 22, and remedial investigations from 1 to 3. Funding also is budgeted for emergency responses, training and technical assistance, and work in the California Desert Conservation Area (CDCA). Also included in the renewable resource area are increases in funding for range monitoring and project planning, and an increase in recreation and wilderness management in the CDCA. Decreases in several areas reflect elimination of low priority projects, inventories, and plans in various renewable resources programs.

The request for planning and data management is an increase of $18 million over the 1988 enacted level, including $6.8 million for ALMRS data collection funding shifted from the lands and realty activity. Another $9.5 million of the increase is for the 1989 costs of continuing to develop ALMRS, as described above. In addition, $2.0 million is requested for BLM's automated data processing modernization project, to redesign and reconfigure the software used to operate the Bureau's administrative and resource operations supporting systems.

The request for cadastral survey is $4.1 million below the 1988 enacted level of $27.9 million, as a result of increased emphasis on the execution of special surveys and a decrease in the number of original surveys to be completed in Alaska.

An appropriation of $57.4 million is requested for operations for the Oregon & California Railroad Grant Lands (O&C), a decrease of $1.0 million from 1988 enacted level. The decrease results from the completion of extensive forest inventories required for the decadal Timber Management Plans for the 1990's.

Also included in the budget are requests of $1.3 million for obtaining access to lands and $8.5 million for range improvement work. The 1989 budget includes $105 million, the same as the 1988 enacted level, for Payments in Lieu of Taxes to local jurisdictions that contain Federal lands.

As noted earlier, the level of the Miscellaneous Permanent Appropriations account in 1988 is significantly overstated in 1988, resulting in a artificial decrease of $72.2 million in 1989. Actual 1987 receipts of $72.1 million were not warranted by the Treasury Department until 1988, thereby understating 1987 budget authority by $72.1 million and overstating 1988 budget authority by the same amount. This had no effect on the actual 1987 payments. The level in the 1989 budget is equal to the estimated 1988 payment level only, so that the effective budget levels in 1988 and 1989 are essentially the same.

BLM estimates it will collect $210 million in receipts from timber sales, sales of lands and vegetation, grazing fees and miscellaneous other sources during 1989. On March 1, 1988, the grazing fee rose from $1.35 to $1.54 per animal unit month (AUM) as a result of changes in indices of costs of production, cattle prices, and land lease rates. The timing of the final decisions on the grazing fee change was too late to reflect those changes in the receipt and budget estimates contained in the 1989 request. Preliminary estimates are that total grazing fee receipts will be $16.9 million in 1989, an increase of $2.1 million from the 1988 estimate before the change in the fee and an increase of $600 thousand from the revised 1988 estimate of $16.3 million.

Consistent with understandings reached in the development of the Bipartisan Budget Agreement, the 1989 budget does not contain a proposal for sharing of net receipts from O&C lands. However, Bureau out-year planning targets for 1990 and subsequent years assume such a policy.

### Minerals Management Service

The Minerals Management Service (MMS) has responsibility for collecting and accounting for royalties and other mineral revenues due from Federal and Indian leases, both onshore and offshore, as well as leasing and supervising the development of mineral resources on the Outer Continental Shelf (OCS). As one of the largest collectors of revenue for the Federal Government, MMS will account for an estimated $5.4 billion in Federal receipts in 1989, including $4.4 billion from OCS bonuses, interest, rentals and royalties and $1.0 billion from onshore mineral leasing.

The 1989 budget estimate for MMS is $610.4 million, an increase of $29.3 million compared to the 1988 estimate of $581.2 million. The 1989 request for annual program operations is $171.3 million, an increase of $2.6 million over the 1988 estimate of $168.7 million. Within the total 1989 request, a program increase of $4.6 million and increased pay ($1.9 million) and other administrative costs such as rents and telecommunications ($2.0 million), are partially offset by program decreases of $3.1 million and a $2.6 million reduction which reflects the revised cost estimate of the Federal Employees Retirement System. Program changes for OCS include reductions of $0.9 million for environmental studies, and $0.7 million for geologic and geophysical (G&G) data acquisition. For the Royalty Management Program, a total program increase of $4.4 million is to automate and centralize production reporting for onshore oil and gas leases. This increase will enhance MMS' ability to increase mineral revenue collections, thus resulting in a net increase of revenue to the Federal Treasury. In the general administration area, a decrease of $0.2 million reflects elimination of one-time telecommunications expenses.

The 1989 estimate for payments to states from mineral leasing revenues is $439.1 million, an increase of $26.7 million over the 1988 estimate. The increase in this permanent appropriation is due to a projected rise in: (1) oil, gas, and coal prices; (2) average coal royalty rates; and (3) oil and gas rents. The estimate for payments to states includes $0.6 million in miscellaneous payments for: (1) interest on late payments to states and Indian accounts when mineral leasing revenues are not distributed as quickly as required by law; (2) interest payments to industry payors who successfully appeal royalty payment orders and are refunded all or part of the principal paid to and held by the Government; and (3) rewards to persons who provide information to the Government that results in the collection of additional mineral revenues owed to the Government. The budget does not propose deduction of the Federal Government's costs of managing and administering mineral leasing programs from payments made to states; however, out-year planning targets for 1990 and subsequent years assume such a policy.

## Office of Surface Mining Reclamation and Enforcement

The Office of Surface Mining Reclamation and Enforcement (OSMRE) administers programs for the regulation of coal mining operations to protect the environment and for reclaiming lands damaged by past mining activity under the authority granted in the Surface Mining Control and Reclamation Act of 1977. OSMRE reviews, monitors, and assists state regulatory and reclamation programs to accomplish these objectives and carries out regulatory and reclamation activities in states that do not have their own programs and on Federal and tribal lands.

The 1989 budget estimate for OSMRE is $260.2 million, a decrease of $48.3 million from the 1988 estimate of $308.5 million (which reflects a net transfer of $7 million to OSMRE to repay funds transferred out in 1987 for emergency firefighting costs) and a decrease of $41.3 million from the enacted 1988 appropriation. Most of the decrease is attributable to a reduction of $30 million in the request for Abandoned Mine Land state grants, which is attributable to the availability of carryover funding from prior years sufficient to continue this program at a constant level. The 1989 estimate includes $831 thousand for increased pay costs and $912 thousand for costs of the Federal Employee Retirement System.

The 1989 request for the Regulation and Technology appropriation is $101.1 million, a decrease of $1.1 million from the 1988 estimate. This funding level will allow OSMRE to maintain its mandated responsibilities for oversight of state regulatory programs. Differences from the 1988 enacted level include reductions of $2.0 million for the Applicant Violator System (AVS) and $1.8 million for the Coal Data Management Information System (CDMIS). These are partially offset by increases of $1.8 million for State Regulatory Program Grants and $740 thousand for Federal Regulatory Programs related to an understanding, explained below, that the Department reached with Kentucky.

Phase One of the Applicant Violator System became operational on October 1, 1987. As directed by court order, the AVS will allow OSMRE to (1) search for and take enforcement actions against long standing violators; (2) ensure that these violators and their owners or controllers do not receive new mining permits; and (3) link companies and corporate officials who have control of operators who are violators. By 1990, the AVS should be fully operational with all Federal and State violation data loaded and a complete relatedness database in place. As a result, funding for extensive collection activity and ongoing contractor support can be reduced.

For 1989, a scaling back of OSMRE's developmental efforts related to the Coal Data Management Information System is proposed. The goal of integrating various information systems within the agency remains valid. However, pending completion of a benefit-cost analysis of the CDMIS concept, a funding level of $500 thousand is requested.

During 1987, the National Wildlife Federation and the Kentucky Resources Council filed a lawsuit against the Commonwealth of Kentucky on various issues with respect to the State's regulatory program. In the late spring/early summer of 1987, the Department coordinated the efforts of a management review team to examine Kentucky's regulatory program and to make recommendations for improvement. The findings of the management review team provided a sound framework for OSMRE to assist Kentucky in addressing the issues of the lawsuit, as well as improving the State's ability to execute its responsibilities under the Surface Mining Act in such areas as inspection and enforcement, two-acre restrictions, bond release, and prevention of wildcat mining. In 1988, OSMRE began a one-time plan of assistance with funding provided over a four year time period. Funds will be used to enhance Kentucky's regulatory program in such areas as helicopter services, computer system enhancements, hydrology and acidity studies, bond release training, wildcat mining deterrence, and staffing. As addressed in the memorandum of understanding between the Department and Kentucky, the 1989 budget requests funding of $4.4 million to continue the plan of assistance initiated in 1988.

The 1989 request for the Abandoned Mine Reclamation (AML) Fund is $159.1 million, a decrease of $47.3 million from the 1988 estimate. The request includes $129.7 million for non-matching state reclamation grants, which is a decrease of $30 million from the 1988 enacted level. The decrease is proposed since a considerable amount of funding previously awarded to the states is unobligated and thus remains available for reclamation projects. The 1989 proposed funding level will provide full administrative support for the states and allow them to continue reclamation contracts already in progress, as well as provide the resources to plan for future land reclamation projects.

Consistent with previous requests, the budget reflects a decrease for the Rural Abandoned Mine Program (RAMP) administered by the Soil Conservation Service of the Department of Agriculture. No funding is requested in 1989, which represents a decrease of $15 million from the 1988 enacted level. The request reasserts the Administration's preference to rely on the State reclamation grants program as the primary delivery mechanism for reclamation services.

The 1989 budget includes an increase of $5.4 million for Reclamation Program Operations to allow OSMRE to adequately address emergency projects resulting from abandoned mines. In 1985, OSMRE issued revised guidelines for the emergency projects program. The guidelines provide a more explicit description of emergency situations and are designed to assure that situations addressed as emergencies meet the criteria set forth in the Surface Mining Act. Federal emergency AML project responsibility is defined as only extending to an abatement of the immediate emergency -- full reclamation of the site is regarded as the State's responsibility. As a result of this policy change, Federal expenditures for emergency projects have declined considerably. Significant unobligated funds existed in 1988 so that reduced new budget authority was required in that year, while still maintaining an adequate program level to address true emergency situations. Thus, while the budget reflects an increase of $5.4 million from the 1988 appropriated level, the proposed funding level of $19.1 million is actually a decrease of $4.6 million from the 1988 program level of $23.7 million. Again, because of the revised emergency guidelines, the proposed level of $19.1 million will allow OSMRE to address adequately Federal emergency project responsibilities.

## Geological Survey

The major missions of the Geological Survey (GS) are to undertake research, fact finding, and mapping aimed at enlarging the Nation's knowledge about the extent, distribution, and character of water and other natural resources, and the geologic processes, structure, and hazards that affect the development and use of the Nation's land and physical environment.

The 1989 budget estimate for GS is $425.3 million, a decrease of $23 million compared to the 1988 estimate of $448.4 million. Within the total requested, increased funding is provided for advanced cartographic systems, investigations of the Exclusive Economic Zone and General Administration to fund the Department-wide administrative accounting/payment system. In addition, other high priority programs are maintained at current funding levels. The 1989 estimate includes $5.7 million for increased 1988 pay costs, $2.7 million for increased building rental costs and $1 million for other increases in administrative expenses.

The 1989 request for the national mapping program is $90 million. Increased funds of $4.5 million are requested to continue the transition of map production to an advanced digital cartographic system that takes advantage of innovative computer technologies in cooperation with the Department of Defense. Primary mapping and revision, land-use and land-cover mapping, and cartographic and geographic information programs are maintained at 1988 funding levels. Support is continued at reduced levels in digital cartography, geographic information system research and applications, image mapping, and earth resources observation systems programs. No funding is proposed for the side-looking airborne radar program because the technology has been demonstrated and applications data can be readily acquired from the private sector.

The 1989 request for geologic research and investigations is $167.8 million. This request includes increased funding of $3 million in offshore geologic surveys to conduct investigations of the Exclusive Economic Zone (EEZ). Additional verification surveys will begin following completion of GLORIA sonar surveys in California, Oregon, Washington, the Gulf of Mexico, Puerto Rico, American Virgin Islands, and the east coast. Funds for landslide hazards, deep continental studies, geomagnetism, climate change, strategic and critical minerals, assessment techniques, sedimentary basins, oil shale investigations, and world energy resource assessment programs are maintained at 1988 levels. Reduced levels of funding are proposed for research related to geologic hazards, geologic mapping, mineral resources, and energy resources. No funds are requested to continue investigations of coastal erosion processes in 1989.

The 1989 request includes $133.3 million for research and investigations to appraise the Nation's water resources and to provide water data necessary to develop and manage these resources. The National Water Quality Assessment (NAWQA) Program is funded at $7.2 million to carry out all of the seven pilot studies initiated in 1986. Funds are included to continue both the Federal and Federal/State cooperatively funded data collection and analysis programs; national water data and information access; regional aquifer analyses; core program hydrologic research; nuclear waste hydrology; coal hydrology; as well as the State Water Resources Research Institutes and Research Grants programs at reduced levels compared to 1988 appropriations.

The 1989 request for General Administration is $16.4 million, including $2 million to continue funding for the Department's financial integration review for management (FIRM) system. The Geological Survey is the Department's lead agency for the acquisition and implementation of this consolidated administrative accounting/payment system for all of the Interior bureaus.

## Bureau of Mines

The Bureau of Mines provides information and conducts research to ensure that the United States has an adequate and dependable supply of minerals to meet its defense, economic, social and environmental goals. The Bureau collects, evaluates and publishes worldwide minerals data on all phases of mineral resource development and analyzes the effects of public policies and regulations on mineral supply and demand. The Bureau conducts research to remove barriers to innovation and competitiveness and to improve technologies used for the extraction, processing and recycling of the Nation's mineral resources.

The 1989 budget estimate for the Bureau is $127.3 million, a decrease of $19.8 million compared to the 1988 appropriations of $147.1 million. The budget estimate includes an increase of $2.2 million for adjustments in administrative costs. Program funding for 1989 includes $33.5 million for information and analysis activities and $70.3 million for research. No funding is requested for the Mineral Institutes. A one-time request of $3 million is included for clean-up of a radioactive waste site in Denver, Colorado, and $400 thousand is included as partial payment for the purchase of the Spokane Research Center.

The Bureau of Mines, much like the U.S. minerals industry, is responding to global market changes by restructuring its budget and organization to streamline operations, to address the emergence of new materials and technologies, and to examine the potential impacts of new environmental regulations on mining. Increased funding, as well as the redirection of existing resources, in the 1989 budget will enable the Bureau to emphasize its activities in several important areas including $6 million for advanced materials $6.7 million for minerals waste management and recovery, $5 million for research in robotics and automation, $4 million for innovative mining technology, $7.6 million for mineral land assessments, and $1.7 million for analysis of regulatory issues. The combination of these enhanced activities will provide new knowledge and technology to minimize health and safety hazards in mines, to develop cost-effective environmental controls and to stimulate efficiency. Funding decreases amounting to $20.6 million result from the decision to forego lower priority research projects and mineral institutes funding in order to capitalize on the initiatives outlined above.

The 1989 budget assumes the sale of the Bureau's helium refining and distribution facilities to the private sector. The Bureau has received a study prepared by a contractor that addresses options for such a sale. The Bureau is preparing to solicit views from the public on the valuation and disposition alternatives covered in the contractor's report, as well as whether private industry is interested in purchase or operation of the Excell facility on a contract basis. Concurrently the Bureau is obtaining comments from the affected Federal agencies about their assessment of the potential effects this disposition would have on their program responsibilities. Later this year, I plan to review alternatives with respect to the future disposition of these helium operations. If these facilities are sold after 1988, the Bureau will continue to conduct its helium resource assessment activities under the information and analysis activity and will retain the Federal government's crude helium inventory to assure its ability to meet future helium needs.

## Fish and Wildlife Service

The Fish and Wildlife Service (Service) has a principal Federal responsibility to conserve, protect, and enhance fish and wildlife and their habitats. The Service currently manages 442 national wildlife refuges and 26 wetland management districts with waterfowl production areas in 150 counties, for a system-wide total of more than 90 million acres. The budget contains sufficient operations funding for the establishment of another eleven planned refuges. In addition, the Service manages 71 fish hatcheries throughout the country with an estimated 1989 production total of 6.4 million pounds of fish for release into the Great Lakes, coastal rivers, and inland reservoirs, lakes, and streams. Research on fish and wildlife and their habitats is conducted at 11 major laboratories and associated field stations.

The 1989 budget estimate for the Service is $702.2 million, a decrease of $61.5 million from the 1988 estimate of $763.7 million (which reflects a net transfer of $20.5 million to repay funds used in 1987 for emergency firefighting costs) and a decrease of $41 million from the enacted 1988 appropriation. The decrease is comprised principally of land acquisition projects, one-time construction activities, the return of certain fish hatchery operations to the Bureau of Indian Affairs, a reduction in emergency fire suppression costs, and grant programs which have been deferred as lower priority items, as compared to costs of day-to-day operations which have been given a higher priority in the 1989 budget. The 1989 estimate includes $3.5 million for increased pay costs and a total of $4.3 million for the Federal Employee Retirement System.

The 1989 estimate for Resource Management, the Service's principal operating account, is $331.9 million, $7.9 million below the 1988 estimate. Operations and maintenance for refuges and fisheries, however, are budgeted at $145.1 million in 1989, essentially the same as the comparable amount enacted in 1988, $146.3 million. This request provides level funding for most ongoing

Service activities while decreasing lower priority or one-time efforts. National wildlife refuges, fish hatcheries, and research centers will receive $36.2 million for maintenance and rehabilitation requirements in 1989, including increases of $1.2 million for hatchery maintenance and $500 thousand for research centers. Law enforcement operations and cooperative research units also retain approximately the same level of funding of $21 million and $5.8 million respectively.

The Service will continue to address contaminants as a high priority and is requesting a total of $23.9 million for contaminant assessment, monitoring, analysis and remedial action on Service lands. Included within this request is $4.9 million for activities dealing with hazardous waste sites. This includes an increase of $1.9 million to begin implementation of remedial actions on six refuges including Crab Orchard, Illinois; Great Swamp, New Jersey; Tinicum, Pennsylvania; E. B. Forsythe, New Jersey; Dismal Swamp, Virginia; and Iroquois, New York. In addition to funding requested for contaminants, increased efforts will also be focused on evaluating mitigation of surface water acidification; $500 thousand is requested for this purpose.

An increase of $1 million is requested within the fisheries activity for the Klamath River Basin Conservation Area to initiate development of a multi-agency restoration program with the Bureau of Reclamation and the Bureau of Indian Affairs for the anadromous fishery resources of the Klamath and Trinity Rivers. This effort is authorized by the 1986 Klamath River Fish and Wildlife Restoration Act (P.L. 99-552). An increase of $288 thousand is also requested for the Lower Snake River Compensation Fund for additional fish restoration activities on the Lower Snake River. The 1989 budget estimate also proposes that $1.3 million for the operation of fish hatcheries and fishery assistance offices on Indian tribal lands, which were transferred to the Service in the 1988 appropriations act, be returned to the budget of the Bureau of Indian Affairs (BIA) in 1989. Because Indian tribes have expressed an interest in operating these entities under self-determination contracts, the Department believes that BIA should continue to fund these stations.

The Service will continue studies to develop baseline information and guidelines for proposed exploration and development of oil and gas reserves on the Arctic National Wildlife Refuge at the 1988 enacted level of $2 million. Studies will focus on fish migration and habitat variables in the area from Prudhoe Bay east to the Mackenzie River, habitat losses and impacts on caribou and related species, waterfowl staging and migration requirements, and water quality and quantity availability. The 1989 request also continues efforts to restore wildlife habitat through section 1242 of the Conservation Reserve Acreage provisions of the Farm Bill (P.L. 99-198) and provides technical assistance in identifying wetlands.

The General Administration activity provides funding for the Service's directorate, administrative personnel, engineering services and fixed costs such as office space, telephones, and postage. The 1989 request for appropriations of $50.6 million in this activity represents a net increase of $1.5 million over the 1988 enacted level. Included are increased costs totaling $1.5 million for space and telephone charges and an increase of $300 thousand for continuation of headquarters and research regional office staff relocation into consolidated office space. Increased costs for the financial management information system totaling $325 thousand are also included.

Two grant programs within the Resource Management appropriation, endangered species grants to states and subsistence grants for the State of Alaska, will not be continued, for a savings of $5.3 million. No funding is proposed for other one-time or short term activities including $500 thousand each for operations at refuges in Alaska and Hawaii, $1 million for research and management of nongame migratory birds, $650 thousand for Alaska marine mammals, $650 thousand for fishery research projects, and $750 thousand for endangered species listing and recovery activities.

The 1989 estimate for construction totals $7.6 million. This request includes $7.3 million in funding to meet important dam safety needs at five dams and to continue the dam safety inspection program. Planning and design for required repairs of the Lake Darling and Lake Ilo dams in North Dakota will total $1.7 million. Dam modifications or reconstruction projects are requested for Umbarger Dam in Texas, $3.1 million; Harrison Lake Dam in Virginia, $1.3 million; and Rynearson Dam in Wisconsin, $870 thousand. A health and safety project for construction of a corral at Wichita Mountains refuge in Oklahoma is proposed for funding at $234 thousand.

Although no funds are proposed in 1989 for new land acquisition under authority of the Land and Water Conservation Fund Act, $1.9 million is requested to allow the Service to continue the 1988 level of acquisition management activities for projects with unobligated prior-year funding and to pursue alternatives to fee acquisition. In addition, receipts deposited in the Migratory Bird Conservation Account are estimated at $29.4 million in 1989, an amount slightly above the $28.9 million estimated for 1988. These receipts are available for purchase of wetlands. Included within the $29.4 million are receipts from the collection of entrance fees on selected national wildlife refuges that are expected to total approximately $1.9 million. The $1 million for the migratory bird advance appropriation that was enacted in 1988 is not continued in 1989.

Sport Fish Restoration receipts are estimated to be $194.8 million in 1989, an increase of $33.7 million over the $161.1 million estimated for 1988. These funds supplement State projects that restore, conserve, manage and enhance sport fish resources, providing for increased public use and benefit. Projects such as fishery research, fish species inventories, and construction of public access facilities are typical of State programs. Wildlife Restoration receipts are projected to be $119.2 million, an increase of $3.9 million over the $115.3 million estimated for 1988. These funds are distributed to States to supplement programs that restore, conserve, manage and enhance wildlife populations of birds and mammals. Typical projects include hunter education programs, wildlife research and inventories, and wildlife habitat improvement.

## National Park Service

The National Park System contains 341 areas which cover 79.8 million acres of land in 49 states, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and the Northern Mariana Islands. Included in the System are three new areas added in the last year: Jimmy Carter National Historic Site, El Malpais National Monument, and the Timucuan Ecological and Historic Preserve. The National Park Service (NPS) has the dual responsibility of protecting the natural and cultural resources of these areas and providing for their use and enjoyment by the public. The Service also conducts programs that promote and assist outdoor recreation planning, preservation of cultural and natural resources, and environmental compliance and review along with other Federal agencies, state and local governments, and private organizations.

The 1989 budget estimate for the NPS is $794.3 million, a decrease of $207.7 million from the 1988 estimate of $1.002 billion (which reflects a net transfer of $47.5 million to repay funds used in 1987 for emergency firefighting costs) and a decrease of $160.2 million from the enacted 1988 appropriation. The 1989 request preserves funding for park operations while significantly decreasing funding for construction and land acquisition and providing no funding for the Historic Preservation Fund. These priorities are consistent with past years' priorities of the Administration.

The 1989 estimate includes $10.3 million for increased pay costs and $7.5 million for the costs of the new Federal Employee Retirement System.

At the $733.8 million level for Operation of the National Park System (ONPS), the principal operating account, the 1989 budget request represents an increase of $13 million over the 1988 estimate of $720.8 million (which reflects the net transfer of $10 million to repay funds used in 1987 for emergency firefighting costs) and an increase of $3 million from the enacted 1988 appropriation. To put these figures in perspective, since 1980, park operating funds have increased a solid 29 percent, even after adjusting for inflation (from $406 million in FY 1980 to $734 million in actual dollars and to $525 million in 1980 dollars).

Of the ONPS total, $681.6 million is proposed to be appropriated from the General Fund of the Treasury. The balance ($52.2 million) will be derived from fee revenues collected during 1988 and deposited in a special account in the Treasury in accordance with permanent fee legislation included in the Budget Reconciliation Act of 1987, P.L. 100-203. Under the fee legislation, appropriations from the special fund will be distributed as follows: 40 percent based on each park unit's proportion of the total budgeted in the prior fiscal year for park operating expenses; 50 percent based on each unit's proportion of the total fee revenues collected during the prior fiscal year; and 10 percent determined by the Director under this program.

The 1989 estimate for ONPS also includes: $600 thousand to explore in more detail the costs and benefits of restoring the 1,970 acres of Hetch Hetchy Valley presently impounded by Hetch Hetchy Reservoir to their natural grandeur as part of Yosemite National Park; approximately $4.3 million in order to correct a disparity between the Park Police and other local civilian police departments in wages and benefits and to maintain the pool of exceptionally qualified recruits; $3.5 million to improve the safety of dams which are in danger of failing; $200 thousand for initial operations at the Jimmy Carter National Historic Site, and $150 thousand for operations at El Malpais National Monument.

The 1989 request for National Recreation and Preservation is $10.2 million, $2.7 million less than the 1988 estimate. The Service is proposing to reduce the amount of Federal involvement in public recreation programs that are carried out at the state and local level as part of the overall effort to help reduce the Federal deficit. Accordingly, technical assistance to states and local governments for recreation programs would be reduced.

The proposed budget for construction is $15 million, and will be limited to the accomplishment of four health and safety projects.

The 1989 request to support the non-performing arts operations of the John F. Kennedy Center for the Performing Arts is $5.2 million, an increase of $300 thousand over the 1988 estimate.

A total of $15.8 million is requested for land acquisition. In addition to funding for land acquisition in cases of emergencies, hardships, and deficiencies, the requested amount for acquisition provides funds for administrative expenses for the Federal program and for State grants awarded in previous fiscal years. No funds are requested for grants-in-aid to States.

Consistent with prior year budgets, no budget authority is requested for grants from the Historic Preservation Fund, a decrease of $28.3 million from the 1988 estimate. Historic Preservation Fund grants to states are not vital to ensure that preservation activities continue. Federal support over the past decade has facilitated the establishment of a network of effectively functioning state preservation offices which can continue to operate without Federal assistance. The encouragement of private sector involvement in historic preservation through enhancement of economic and tax incentives has been highly successful.

The 1989 request eliminates direct Federal support for the Illinois and Michigan Canal National Heritage Corridor. The Commission was funded at $250 thousand in 1988.

The Service will receive $60 million to repair park roads as part of the Federal Lands Highway Program, and $31 million to liquidate contract authority to help relocate U.S. Route 25E which runs through Cumberland Gap NHP.

## Bureau of Indian Affairs

The Bureau of Indian Affairs (BIA) is responsible for managing and protecting natural resources on 52 million acres of Indian trust lands and for assisting tribes to serve 864,500 American Indians and Alaska Natives. It provides community services, operates or provides financial support to operate schools, maintains law enforcement systems, provides social services, and assists in farming, ranching, forestry and mining on reservations. These services are provided directly by the Bureau and through contracts with over 300 tribes.

The 1989 budget estimate for BIA is $1.421 billion, a decrease of $42.0 million compared to the 1988 estimate of $1.463 billion. Exclusion of funding for nonrecurring construction projects or irrigation projects with low benefit/cost ratios accounts for over half ($26.4 million) of this decrease. The budget of $1.421 billion includes $1.026 billion in current appropriations and $394.6 million in permanent appropriations and trust funds. The Bureau's budget is the largest in the Department, comprising 22 percent of the total in 1989.

The 1989 estimate for all accounts includes a total of $6.3 million to cover the annualized cost of the January 1988 pay raise and $7.2 million for estimated costs of the Federal Employee Retirement System.

During 1989 the Bureau will continue to address the persistent economic and social problems on reservations, and improve self-determination for Native Americans. Major priorities include increased funding flexibility for selected tribes and improved provision of education, social services, and information services.

The 1989 request for Operation of Indian Programs, the Bureau's primary operating account, is $938.4 million. Increased tribal involvement in the operation and management of BIA programs will be stressed in 1989 through increased self-determination contracts and implementing a tribally designed budget initiative which provides flexible funding agreements between tribes and the Bureau for operation of all BIA funded programs on selected reservations. In the 1988 appropriations act, $1 million was provided for demonstration projects for ten tribes to design their own budgets and address tribally determined priorities. During 1988, the Bureau will be working with these tribes to plan and develop the process which is to be implemented in 1989. Based on the results from the initial planning, other tribes will also be able to participate in this program during 1989.

For education, the Bureau has begun implementation of an "effective school" process. This process will address such issues as educational leadership at all levels, curriculum development, improved student performance, in service training and others. Based on criteria developed by the Department of Education, effective schools, among other things:

-- have high expectations for student success,
-- develop curricula to emphasize basic learning skills,
-- have principals who provide strong instructional leadership,
-- make students accountable and regularly monitor their progress, and
-- involve parents and the local community.

To implement a portion of an effective school process, BIA is increasing its 1989 education budget by $1.5 million for staff training, textbook upgrading, and the gifted and talented program. In addition, an exemplary schools program will be funded that will identify and reward ten schools for superior performance. The increased funds will be used to support specific school proposals to further academic excellence.

BIA will continue to address employment problems on reservations through the Employment Assistance Readiness Net (EARN) demonstration workfare program. An additional $2 million will be provided for this purpose to support six tribal demonstration projects and two Bureau projects. Under this program, tribes will coordinate the existing programs on reservations to more effectively lead individuals to employment or training opportunities. Through EARN, tribes will design a comprehensive work plan that takes full advantage of all available resources on the reservation, including education programs, vocational training, alcohol and substance abuse counseling, tribal community college opportunities, and any other existing resources.

In the area of substance and alcohol abuse prevention, BIA will provide $3.9 million to continue the Drug and Alcohol Abuse program at the 1988 funding level. Also, BIA will provide curriculum materials and technical assistance through school counseling programs emphasizing substance and alcohol abuse prevention; training materials for tribal court staff in drug abuse issues; training in law enforcement in the area of controlling illegal narcotics trafficking and eradication. Continued funding is provided for the Drug Abuse Coordination Office which oversees all Bureau alcohol and drug abuse programs.

In 1989, BIA will provide $1.5 million toward child protection efforts against child abuse and neglect on reservations. In this effort, BIA will be increasing the field staffing level by 83 FTEs. This is being done to approximate comparable State staffing standards in the area of child abuse counseling.

An increased emphasis will also be placed on providing tribes improved information resources and technical assistance. In 1989 the Bureau wishes to establish an Institute for Tribal Government ($500 thousand) which will enable tribes to participate in programs offering formal instruction, on-site technical assistance and resource development and information through a technical assistance center. Increased funding of $1 million is being provided for the Land Records Improvement and Indian Integrated Resources Inventory (IIRIP) Programs, which will address a land title records backlog and enhance resource inventory systems on reservations. These system modernizations will provide up-to-date, on-line land title and ownership information for use in the royalty management process and natural resources digital data bases for more effective tribal planning and management of land and natural resources.

Other enhanced services to the tribes provided for in the budget include establishing a Division of Judicial Services ($400 thousand) to more effectively provide information to tribes on court activities, provide technical assistance to tribal court systems, and conduct a training program for court personnel. Funding in the amount of $2.5 million is being requested for services to new Federally recognized tribes. Also, an additional $6.8 million is being provided for road "sealing" costs to meet required maintenance standards in order to insure future road construction funding for Indian reservations from the Federal Highway Trust Fund.

The Bureau proposes funding ($1.3 million) for six fisheries facilities operated for Indian tribes by the Fish and Wildlife Service (FWS) that Congress transferred to the FWS budget in the 1988 appropriations act. Many tribes have indicated their desire to assume program operations of these facilities under a self-determination contract, and the transition to contracting can best be facilitated if the funds are maintained in BIA, which is responsible for initiating such contracts.

One major decrease proposed for Bureau operating programs is deletion of the $7 million Indian Business Development Grant Program. However, the Bureau is increasing funds for technical assistance in 1989 to assist tribes and individuals in applying for private sector loans and is increasing its loan guarantee program.

A decrease of $6.3 million is proposed in funds budgeted for emergency fire suppression and pre-suppression costs. The funds requested in 1989 will be used to pay back 1988 fire costs. The amount requested is based on an average of the obligations of several previous fire years. If more funds are required for 1988 repayment, additional funding will be requested. The Special Fish Management program decreases by $4.3 million because of one time funding in 1988 and discontinuing lower priority work.

The construction budget request totals $56.8 million in 1989. Funds in the amount of $8.4 million are proposed for the construction of a new Saint Francis Indian High School on the Rosebud Reservation in South Dakota, and $22.5 million will be used to improve or repair existing schools. The 1989 Facilities Improvement and Repair list was included in this year's budget justification material, allowing a much earlier review of projected repairs than in prior years.

In 1989, the facilities program will continue to emphasize cooperative and cost-effective efforts such as the joint agreement between the Standing Rock School Board and the Ft. Yates School District in South Dakota, which is to be implemented in the upcoming school year. Under this agreement, students from the public school will be participating in a combined education program in the BIA school. This will result in substantial savings for the Department of Education (DoEd) which had intended to make major renovations at the facility. These DoEd grant funds will now, in turn, be applied toward repairs at the BIA school, saving the Bureau significant costs in facility repairs.

A total of $17.2 million will be used for Indian housing rehabilitation. This will provide for repairs to approximately 1,627 Indian units. Additionally, $7.2 million will be used for deficiency verification analysis and for conceptional and final design activities associated with hazardous dams on the Department-wide priority list, and for other costs related to irrigation construction.

A reauthorization of the Highway Trust Fund was enacted in April 1987 making $80 million available for Indian road projects annually. These funds are used for construction and reconstruction of roads on reservations.

The 1989 budget includes $3.2 million for subsidies for the Revolving Fund for Loans, $2.6 million for the Loan Guaranty program, and $11.3 million for the Indian Guaranteed Loan Subsidies program, reflecting the Administration's legislative proposal on credit reform. A total of $45 million in new loan guarantees is proposed for 1989.

The 1989 budget also includes $14 million under the Miscellaneous Payments to Indians account. This includes a payment of $11.3 million to the Tohono O'Odham Nation (Gila Bend Indian reservation) and $2.7 million to cover the White Earth Land Settlement Act and Old Age Assistance Claims Act requirements.

Permanent appropriations and trust funds are estimated to be $394.6 million in 1989, an increase of $4.3 million from the 1988 estimate. These funds include receipts from judgement awards to fulfill claims and treaty obligations, receipts from leasing trust lands for oil and gas production, grazing and other similar purposes, and funds generated by Indian irrigation and power projects.

## Territorial and International Affairs

The Assistant Secretary for Territorial and International Affairs carries out the responsibilities of the Secretary related to the U.S. territories of American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the Virgin Islands, as well as the freely associated states of the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), and the Republic of Palau. Palau is currently administered under a United Nation's trusteeship agreement, but the budget assumes that a Compact of Free Association with Palau will be implemented in 1988.

As you are aware, Compact implementation for Palau requires a Congressional resolution. Thus far, only the Senate has taken action to implement the Compact. Should the House not take similar action during this Congress, the budget for 1989 will have to be amended, possibly to include restoration of operations funds under the Trust Territory appropriation. At the very least, 1989 would become the first year of Compact funding and the estimates would have to be adjusted accordingly. We sincerely hope such a major adjustment is not necessary and the Palau Compact can be implemented on a timely basis. We sincerely believe, as does the Republic of Palau, that Compact implementation is the most viable solution to Palau's current financial and political problems.

The objectives of the Office of Territorial and International Affairs are to promote the political, economic and social development of the territories and direct each toward greater self-government and self-reliance. In the case of the freely associated states, the objectives are to coordinate and monitor continuing Federal programs and services, and to provide financial and technical assistance pursuant to the Compacts of Free Association (P.L. 99-239 and 99-658) which enacted the Compact agreements.

The proposed 1989 budget for Territorial and International Affairs is $323.4 million, a decrease of $191.5 million compared with the 1988 estimate of $514.9 million. Most of the decrease reflects a scheduled compact funding decrease of $146.9 million for the RMI, the FSM and Palau, and a $39.2 million decrease that reflects the close-out of the Trust Territory government.

The 1989 request for administration of the U.S. territories is $71.5 million, a decrease of $6.8 million from the 1988 estimate. The budget total reflects a policy of encouraging increased private sector participation in territorial economic development, while enhancing government efficiency and encouraging economic diversification of the islands.

The request includes $20.8 million for an operations grant to American Samoa to provide funding at the 1988 appropriated level. A total of $3.8 million is requested for construction projects in Guam, American Samoa, and the Virgin Islands, a decrease of $6.6 million. The 1989 construction program includes $1.7 million for completing the expansion of the Ordot landfill on Guam, $1.0 million for water system improvements in American Samoa, and $1.1 million for water system improvements in the Virgin Islands. Technical assistance funding is proposed at $2.2 million, and loan assistance for the Guam Power Authority will decrease by a scheduled $400 thousand to $1.5 million. Covenant grants for Northern Mariana Islands operations and capital development is proposed at $40.2 million, an increase of $5.8 million which is consistent with the schedule of payments included in the Special Representatives Agreement as enacted in P.L. 99-396.

An estimated $70 million will be provided to Guam and the Virgin Islands for anticipated Federal collections of income and excise taxes, respectively. This payment is included in a permanent appropriation and is the same as the estimated 1988 funding level.

Approximately $2.8 million is requested for 1989 to fund certain outstanding liabilities of the Trust Territory of the Pacific Islands appropriation, a decrease of $39.2 million from the 1988 appropriation. This decrease reflects the 1988 funding of certain remaining commitments of the Trust Territory Government, such as portions of Micronesian War Claims payments and the accumulated government deficit. The decrease is also predicated on the assumption that the Compact of Free Association for Palau will be implemented in 1988, and, therefore, funding for Palau is no longer included in this account. The $2.8 million requested for 1989 will resolve all negotiated claims for 272 parcels of land in the former Trust Territory used for public purposes pursuant to indefinite land use agreements between the Trust Territory Government and the landowners.

For the portion of the Compact of Free Association funding account subject to annual appropriation, the budget request is $34.9 million. This funding will provide for the continuation of certain mandated Federal programs and services for the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM), and the Republic of Palau. Funding for most of the direct payments to these governments over the fifteen-year life of the Compact is backed by the full faith and credit of the United States and thus is permanently appropriated. The Compact for the RMI and the FSM came into effect and initial payments were made in 1987. The Compact for the Republic of Palau is expected to be implemented in 1988. Permanently appropriated funds for direct financial assistance under the Compact will total $144.2 million in 1989, a scheduled decrease of $146.9 million from the $291.1 million provided in 1988. The 1988 payments are considerably higher because of up-front funding of $84 million in investment development funds for the FSM, Marshalls, and Palau, along with one-time payments for Palau's capital account, U.S. military use and operating rights in Palau, and construction of a road system in Palau as required by Section 212(a) of the Palau Compact (P.L. 99-658).

Secretarial Offices

The budget request for Secretarial offices total $97.6 million. This is an increase of $7.4 million over the 1988 appropriation and the current 1988 estimate for these offices.

The 1989 estimate includes an additional $867 thousand for increased pay costs. Within the $97.6 million total, the Office of the Secretary, which provides executive direction and management for the Department, is funded at $53.5 million; the Office of the Solicitor, which provides legal services for all components of the Department, at $25.3 million; and the Office of the Inspector General at $18.8 million.

### OPENING STATEMENT

Secretary HODEL. Thank you, Mr. Chairman.

I would like to introduce Tony Itteilag, who is the departmental Budget Officer, who is here, of course, to handle some of the most detailed questions we may get and that I will just summarize.

The purpose of the lengthy statement is, of course, to provide as much of a detailed base as we can about our budget, but I would just like to summarize it briefly.

Before I do that, Mr. Chairman, I would like to say that this is probably the last time I will appear before this committee to present a budget, and I really wish to take this opportunity to thank you personally and the members of your committee and your staff of the committee and your personal staff for the courtesies which have been extended to me throughout my tenure.

We have not always agreed on matters. Sometimes the nature of our jobs require that we must take conflicting positions, but I feel that throughout we have been treated very well by you and by your staff, and I wish to thank you for that.

Senator BYRD. Well, let us thank you also, Mr. Secretary, and on behalf of the staff, we also wish to thank your staff, your associates and you, and we hope that you have everything good ahead of you.

Secretary HODEL. Thank you, Mr. Chairman.

### BUDGET SUMMARY

The budget that we are presenting here I think can fairly be described as predictable in the sense that I think that it does not contain surprises for the committee or the staff. It has been crafted with the budget summit agreement in mind in order to be consistent with that.

Our overall budget is $6.6 billion, of which $4 billion is within the purview of this subcommittee, and that $4 billion is $471 million less than the 1988 level, but the proposals in this budget are consistent with prior years' submissions by the administration.

We have generally, in the face of severe budget pressure, attempted to put our emphasis to maintain our operating programs, and I just would like to mention, because it's a matter that often arises, not in this committee or in this context but elsewhere, that the National Park Service has a share of the departmental operating budget which now represents almost 15 percent of the Department of the Interior budget.

When we began in 1980 it was 8.8 percent, and I just mention that because sometimes the suggestion is made that we have not paid as much attention to the parks or the Park Service as we should. That may well be true in some particular areas, but certainly in terms of financial commitment we have seen an increasing commitment to the Park Service.

The most significant proposed reduction, as in past years, again are recommendations in the construction area, in land acquisition, and in historic preservation grants. There are a number of things of special interest this time.

First of all, we do not propose to do any adjustments with the Wallop-Breaux fund, which has been a matter of considerable contention in past submissions, and we also are not proposing that there be a change in the revenue sharing of Federal lands. You know that in the last couple of budgets we have proposed that there be a net revenue sharing. That was because of the budget summit agreement, and in all candor I must acknowledge that the out-year projections suggest once again the administration will be proposing a net revenue sharing, but that is not something I need to contend for in this particular budget submission.

We do have assumptions about the probable leasing of the Arctic National Wildlife Refuge, and in that regard we will need the assistance of many in Congress in order to be able to move forward.

One item that I have had particular interest in has been the proposal for a study of whether or not we can find alternate water and power sources to permit us to remove the Hetch Hetchy Reservoir from Yosemite National Park. If it is as bad an idea as some people suggest, the study won't take very long and won't cost very much. If it's potentially good and useful, then it's certainly something we should be pursuing.

We have a significant increase of $22 million in this budget request, that is nearly a doubling, for hazardous materials activities on Department of the Interior land, and those I think are the items I wanted to touch on, Mr. Chairman, before we turn to your questions.

## NEW RIVER GORGE

Senator BYRD. I want to call your attention to the budget proposal for the New River Gorge National River. The National Park Service has submitted a budget estimate which proposes a slight increase in total funding for operating the National Park System, but which also calls for a 25-percent reduction in funding, in other words, $326,000 for operations at New River Gorge. Were you aware of this?

Secretary HODEL. I was aware that there was a modest adjustment downward, Mr. Chairman. Yes; I was.

Senator BYRD. Well, this is not a modest adjustment downward. It's an adjustment downward, but not a modest one.

How would you justify that decrease in light of the fact that this is a relatively new park, one whose budget is not stabilized and one whose budget needs to increase for the next few years as the park is being developed.

Secretary HODEL. Mr. Chairman, the advice I have is that there are two items. Construction was one-time construction amounts appropriated in 1988 and the operating funds fall under that category of a proposal on our part not to fund those things that were congressional adds in 1988, recognizing that Congress may have a different set of priorities than we submit.

Senator BYRD. $300,000 of the $326,000 is operating money. I am concerned about the impact of the budget estimate because I believe that local residents will see this as just another example of the Government proposing one thing and delivering quite another.

For example, I know that the local county commissioners and the chambers of commerce are convinced that the Park can provide, and needs to provide, a stimulus for economic development and economic diversification in the surrounding area. However with budgets like this, it is hard for the local residents to keep up their own morale and to support the Park Service as well.

Do you believe that the Park Service would be able to use another $600,000 for New River park development and operations and for providing technical assistance to the local West Virginia communities on ways in which to tie park development into local community development activities?

Secretary HODEL. Mr. Chairman, as long as it is understood that I am not seeking such funding as a part of our proposal which I know you recognize very well.

I have no doubt but that the Park Service has the ability to spend amounts in that magnitude in a constructive and useful fashion. It presents a problem of where we find the money if it is to be taken elsewhere in our budget.

But I understand the point you're making, and that is that the kind of yo-yoing of funding for a congressional add-on as last year and the Department then not proposing to fund it this year creates these uncertainties in the community as to what the funding level will be and that is not a desirable kind of approach and I don't have an easy solution to it.

### HETCH HETCHY STUDIES

Senator BYRD. I mentioned the figure of $600,000 because it is the amount included in this same budget for feasibility studies to see if the O'Shaughnessey Dam can be removed from the Hetch Hetchy Valley in Yosemite National Park in California, and to determine if the valley could then be returned to a natural condition. I understand that the cost estimates for Hetch Hetchy restoration run into billions.

Secretary HODEL. Mr. Chairman, I would like to comment about that. The only estimates of billions were made off the top of her head by the former mayor of San Francisco and repeated subsequently by only a couple of individuals.

Every indication from the initial preliminary studies is that, in fact, for a significantly smaller sum of money we could conceivably restore that unusual and unique valley to Yosemite National Park. Now whether that is possible or not only studies will tell.

The $600,000 in proposed studies is the optimum study level and is not a minimum amount that could be used to keep this project at least under study, and a fair amount of the study work that the Bureau of Reclamation would carry out for that $600,000 would be useful funding for the water studies that need to be made as California faces increasing problems because of increased population and water supply problems.

Our initial study, incidentally, indicated that by reoperating reservoirs other than Hetch Hetchy with the removal of the O'Shaughnessey Dam, it's possible that an additional 100,000 acre feet of water could be made available. So, in fact, it may be a mechanism for increasing the flows. However, the point you make is well taken, and that is that some of that money could be allocated for other uses within the budget.

### NEW RIVER GORGE

Senator BYRD. I believe that this is an example that lacks congressional support and, if so, then it may be a misplaced budget priority. I would hope that we would take a new look at New River Gorge. I have pushed the local officials to work together to develop the New River Gorge, both inside and outside the park.

The communities of Hinton, Glen Jean, Oak Hill, and others are now involved in a concerted effort working with the Service to keep economic development in mind at every step of the way as we move forward with the development of the New River Gorge National River.

What happened to this figure at OMB? Did it suffer a reduction at OMB?

Mr. ITTEILAG. No; it didn't, Mr. Chairman, not in that particular case.

Secretary HODEL. This may be a situation where we recognize the realities of the situation we were in on the budget, Mr. Chairman. It did not even suggest the funding in this year.

By the way, I am well aware also, Mr. Chairman, of the way in which you have urged Interior to help the New River Gorge be habitable and be enjoyable by people, particularly with regard to the black fly activity, and I thank you for your urging in that regard.

Senator BYRD. Well, our efforts in connection with New River are urgent, and we think it's essential that this money be restored so that this project may proceed more rapidly.

I would like your personal assurance that the Department and the Service will strengthen these efforts to work with local citizens and local elected officials to foster economic development through and in conjunction with Park Service development in the New River Gorge and to continue the technical assistance efforts to Hinton and other communities that are working together in the enterprise.

Secretary HODEL. Mr. Chairman, I have made a note of this and I will pursue it with the Park Service and try to follow up on your request.

Senator BYRD. I have been down there recently and the residents of the various communities were not very well satisfied with the kind of cooperation they were getting from Park Service officials. They feel that they, the residents, need to be taken into consideration; and they feel that they can have some beneficial input into the planning and they desire to have that input. I have had a talk with the park officials to that extent and have been assured that there will be more cooperation and coordination with the local people.

This is a big project and a very important one. It affects not only Fayette County, but Summers County, Raleigh County, and other counties in the area, and it's something that will help to diversify the economy of the region. West Virginia has the highest unemployment in the Nation, and yet it has the kind of beautiful scenery and tourist attractions that can assist it in great measure and help to build its economy and put people to work. We think it's a scenery that is very unique.

So I should say at this point that it will be my intention to try to restore this money because we don't think we can live with this kind of reduction and we don't think it's justified. We understand the budget problems, but it's a matter of priorities, as you pointed out earlier; and some of us may have different ideas as to where the priorities should be.

## STRIPED BASS

Mr. Secretary, the committee supports your efforts to restore striped bass populations in the Chesapeake Bay. Is it accurate that the bay restoration project is the Fish and Wildlife Service's highest priority striped bass project?

Secretary HODEL. I believe it is at the top. I always hesitate to say highest because I immediately turn around and say well, but I understand that it is a very high priority for the Fish and Wildlife Service, yes, and one in which I think they have great hope of success.

Senator BYRD. I understand that the Service's region 5 recently ranked a number of hatchery expansion opportunities in terms of the cost of providing additional phase 2 striped bass for the bay.

I am also told that based on the cost of hatchery expansion and increased production, Bowden National Fish Hatchery was ranked the most cost-effective hatchery for expansion. Now is that a correct analysis?

Secretary HODEL. Mr. Chairman, if I understand the briefing material which has been provided to me, it is not. I have indication that Bowden was ranked No. 17 out of 17 for implementing expansion, but what I can't tell you is whether that means they were, therefore, at the top of the list or at the bottom and if that means whether they are the best or the worst for fish.

Senator BYRD. I'm looking at a memorandum from the U.S. Fish and Wildlife Service dated February 22 of this year which shows the Bowden Hatchery at the top of the list on the basis of cost per fish followed by Lamar, Warm Springs, Orangeberg, Midland, Eadenton, Meridian, et cetera.

Secretary HODEL. Yes; I'm sorry, but the information I have does not confirm or reject that. So I would have to respond for the record, Mr. Chairman.

Senator BYRD. Very well. We will also place this memorandum in the record.

[The information follows:]

UNITED STATES GOVERNMENT

# memorandum

U.S. FISH AND WILDLIFE SERVICE

ONE GATEWAY CENTER
SUITE 700
NEWTON CORNER, MASSACHUSETTS 02158

**TO:** Director, FWS, Washington, D.C. (DB)
Attention: Jim Leupold

**FROM:** Regional Director, Region 5

**DATE:** FEB 22 1988

**SUBJECT:** Information Requested by Don Knowles on Hatchery Rehabilitation and Expansion for Chesapeake Bay Striped Bass Production

Question: Considering only those National Fish Hatcheries producing striped bass for the Chesapeake Bay, what is the priority for rehabilitation and expansion?

Answer: In priority order the Hatcheries are:

Harrison Lake National Fish Hatchery, Virginia
Bowden National Fish Hatchery, West Virginia
Edenton National Fish Hatchery, North Carolina
McKinney Lake National Fish Hatchery, North Carolina
Millen National Fish Hatchery, Georgia

Question: What is the cost per fish for additional striped bass production based on the cost of rehabilitation and expansion?

Answer: Depending upon individual project needs, some hatcheries stock out only phase I (fish 1-2 inches in length), some hatcheries stock only phase II (4-6 inches), and some hatcheries stock both sizes of striped bass. Since phase II striped bass are needed for the Chesapeake Bay restoration project, only those hatcheries producing this size are listed below. The cost per fish is simply the rehabilitation and expansion cost divided by the increased phase II production potential based on one year's use:

| National Fish Hatchery | Rehab-Expansion Cost | Increased Production Potential (Phase II) | Rehab-Expansion Cost / Fish |
|---|---|---|---|
| Bowden | 3,227,000 | 306,000 | $10.55 |
| Lamar | 1,080,000 | 100,000 | $10.80 |
| Warm Springs | 1,006,000 | 85,000 | $11.84 |
| Orangeburg | 4,592,000 | 360,000 | $12.76 |
| Millen | 4,848,300 | 315,000 | $15.39 |
| Bears Bluff | 6,050,000 | 387,500 | $15.61 |
| Edenton | 8,713,164 | 450,000 | $19.36 |
| Meridian | 7,834,000 | 375,000 | $20.89 |
| Private John Allen | 3,888,000 | 175,000 | $22.22 |
| Harrison Lake | 12,720,000 | 550,000 | $23.13 |
| Carbon Hill | 3,023,000 | 125,000 | $24.18 |
| McKinney Lake | 5,884,000 | 190,000 | $30.97 |
| Mammoth Spring | 2,587,000 | 58,000 | $44.60 |

Question: What is the current bottleneck in striped bass production?

Answer: Lack of adequate fish production space and a need to better refine culture techniques for this species.

Howard N. Larsen

NEED FOR ADDITIONAL STRIPED BASS PRODUCTION

Senator BYRD. Do you believe that the additional stiped bass production should be done at the most efficient location?

Secretary HODEL. Yes, Mr. Chairman; it should be done in that fashion and it should probably be done at more than one location. In other words, we should not put all of our expansion or our activity in one location for obvious reasons and sometimes a problem can occur at a particular hatchery. So I think it's desirable to have multiple sources.

FISCAL YEAR 1988 REPORT LANGUAGE

Senator BYRD. I want to be certain that we understand your position regarding the earmarking of specific projects in the 1988 bill and accompanying report. OMB has urged you to review the list of so-called wasteful items and to see if your various agencies have higher priority items on which to use the money. Have you complied with OMB's direction?

Secretary HODEL. We are complying with it. We are reviewing the matter and trying to determine whether there are any items that we have a desire to reprogram the funds on and, if we do, we would come forward with recommendations to the Congress for reprogramming.

Senator BYRD. Do you anticipate any shift in spending priorities from those as specified by the committee?

Secretary HODEL. At this moment I do not, but that is an answer based on not having received a report yet on the results of the review. To put it differently, I don't have a list in my mind of changes that I would be recommending.

Senator BYRD. Can we have your personal assurance that any shift which is contemplated will be submitted for committee consideration pursuant to the reprogramming guidelines?

Secretary HODEL. Yes, sir.

PARK POLICE PAY

Senator BYRD. You will recall, Mr. Secretary, that last September you asked the committee to consider a pay increase for the U.S. Park Police as a part of the 1988 bill. We deferred direct action on your proposal and in a letter to the GAO, Senators Johnston, McClure, Stevens, D'Amato, and Mikulski asked the General Accounting Office for an analysis of Park Police pay and benefits in comparison with other local police departments. Were you aware of that agreement?

Secretary HODEL. I was not aware of that letter. I may well have been, but I was not aware of it at the time further actions took place, Mr. Chairman.

Senator BYRD. Do you then support the resolution offered by Senator Stevens, that is, to have the GAO review the issue for the Congress before any action is taken?

Secretary HODEL. Mr. Chairman, I support the continued review by GAO, but I believe that the Office of Personnel Management approved a partial pay increase based upon the criteria that are available to them already as of this stage.

Now the GAO report, if it confirms the information provided by the Park Police, would indicate that an additional amount would be necessary in order to provide comparability or to recognize the relative responsibilities of these various police services in the Washington, DC, area. So I would support the study. I do not understand that the proposal would require that the pay increase not be implemented to the extent of the portion that has already been approved under existing guidelines.

Senator BYRD. I understand that the Secretary's Office in a letter signed by Mr. Morris A. Simms, Director of Personnel, dated January 22 requested a pay increase from the Office of Personnel Management for the Park Police. That was granted and the Park Police pay increase went into effect on February 10. Were you personally aware that this request was being made?

Secretary HODEL. Yes, sir; I was. In fact, I was quite adamant in it because the Treasury Department had been working to obtain a pay increase for the Secret Service, and I was advised that there were pay differentials between the Washington, DC, police force and the Park Police which were already beginning to cause problems.

In the last budget we requested additional funds for the Park Police in order to have a new recruit class. One of our problems is it is very costly to recruit new people for the Park Service police, as for any recruiting activity, and to train them. It's an extensive and expensive process.

If our pay level is significantly different from the police forces in the vicinity, Secret Service, or the Washington, DC, police, we have the experience, I am informed, of spending a lot of money to recruit and train people and then they leave us for better paying jobs in adjacent services. So that was the basis on which we submitted to the Office of Personnel Management a request for a comparable pay increase to the one that Treasury was seeking for the Secret Service.

Senator BYRD. I am told that the Department acted in part as the result of language in the statement of the managers accompanying the continuing resolution conference report in the section related to the Treasury, Postal Service, and General Government Subcommittee. That subcommittee has jurisdiction over the Secret Service. Do you agree that you should have checked with the subcommittee on the applicability of that language?

Secretary HODEL. Mr. Chairman, I must confess, I did not have in mind that we had received a directive from the committee. That is a failure on my part to have done so, but I did not have that in mind. My belief was that the administrative services within the Department would be responsible for seeing to it that we dotted all the "i's" and crossed the "t's."

What I was focusing on was the policy question of comparability of pay between the Park Police and these other services and frankly did not get into the matter of who should be notified. I probably should have, and certainly I think we should have been in touch with the committee in view of your known interest in the matter and would certainly expect to do so in that kind of situation in the future. I apologize for not having done so.

Senator BYRD. On April 11 I sent you a letter cosigned by Senators McClure, Johnston, Stevens, and D'Amato asking for an explanation of the issue and of your role in it. When do you plan to respond to the letter?

Secretary HODEL. I am advised this week, Mr. Chairman.

Senator BYRD. I am still at a loss as to the source of funds proposed to be used for the pay increase. Do you agree that no funds were appropriated for the approximately $4 million increase which this pay increase will cost?

Secretary HODEL. I would like to ask Mr. Itteilag to respond to that, if I may.

Mr. ITTEILAG. Mr. Chairman, with respect to fiscal year 1988, the amount that we will need is about $1.5 million, and in the recent reprogramming that we sent to the subcommittee that proposed to use some of the Federal Employees' Retirement System money not needed for that purpose, we included in that reprogramming $1.5 million for the Park Police pay raise.

The $4 million amount that you refer to is the amount that we will need in fiscal year 1989 for the Park Police pay raise, and that is included in the Park Service budget.

Secretary HODEL. Mr. Chairman, if I may just make a comment.

Senator BYRD. Yes.

Secretary HODEL. Obviously we need to see to it that we handle our mechanics properly, that we comply with the committee's requirements and that we conform to the rules with regard to pay and pay increases.

But if I could speak to the merits for a moment of the Park Police. They have a very substantial role in Washington, DC, where one-third of the land mass is under the management of the Department of the Interior, the National Park Service almost entirely.

They are engaged in urban police activities because of that. They are highway patrolmen on the parkways, the George Washington and the Baltimore-Washington Parkways. They are assailed by criminals who are engaged in drug activities. They participate with the D.C. police in drug busts and the like. They, therefore, require not only being armed and protected and trained, but also compensated in accordance with those activities.

So I hope that any concerns the committee may have and any objections the committee may have to our not having touched all the bases will not work to the discredit of those fine men and women who are serving in the Park Police who deserve to be compensated in a comparable fashion to their brother and sister officers in the adjacent forces.

Senator BYRD. In the reprogramming that you talked about there is no mention made of the Park Police.

Mr. ITTEILAG. You are correct, Mr. Chairman. We did not say so explicitly and we should have. We will send you another letter being more specific on that matter.

Senator BYRD. And when will we get that letter?

Mr. ITTEILAG. You will have that letter this week as well.

Senator BYRD. Senator Reid, do you have some questions.

Senator REID. I do, Mr. Chairman.

### TRUCKEE-CARSON RIVER—NEWLANDS PROJECT

Mr. Secretary, you are aware that there has been a significant amount of time spent in the past year and a half or thereabouts on the problems that relate to the Truckee River, which is that little, tiny river that serves the population center of northern Nevada?

Senator BYRD. I am.

Senator REID. The Truckee-Carson River, but especially the Truckee that serves an area of approximately 400,000 people, and it's a river that you can throw a rock across in most parts of it. It's a tiny, little river.

Also, Mr. Secretary, of course, you are aware that the first project ever of the Bureau of Reclamation was the Newlands project which diverted the Truckee River away from Pyramid Lake and formed an agriculture area in Nevada that never existed before.

It's quite clear that your office and various agencies within the Department and my office and many others have spent hundreds and hundreds of hours of time trying to figure out a way for the water to go more places than it possibly can.

I am not sure that you have been advised, but there has been a letter sent by my office with the direction of the irrigation district that serves those farmers in that area asking them if they would be willing to sell, voluntarily sell, some of their water rights. It appears that that is the only solution to the problem, is that there simply isn't enough water to go around and we have to figure out some way to take away some of the use of that little river.

We have been advised by people within your Department that you have tentatively said if that is the last resort, then if a plan could be developed that involved limited purchases of some of these water rights from willing sellers, then the Interior Department would be willing to make some budgeting priorities for that in the future.

Is that generally the feeling of the Department at this stage?

Secretary HODEL. Senator, we had a discussion of this issue recently in the Department, and I don't think I am to the point of a tentative agreement that we ought to be doing something yet because what I am being advised is that the water rights laws are such that if we were to purchase for either the Bureau of Indian Affairs for the Pyramid Lake or for the Stillwater Fish and Wildlife Management Area, that under State law, which we believe is applicable to water, the fish and wildlife uses are not considered a beneficial use and, therefore, we would be subordinate in right to the water we purchased to the next filing applicant.

In other words, we may buy from "A" his water right, but "B" then would have a right to come in and claim for a beneficial use under State law and still prevent us from having the water flow to the wildlife area.

Senator REID. So the only way it could be done would be by some agreement reached through the State that would be one which would be legally effective.

Secretary HODEL. Right. I think the legal effectiveness is very important.

Second, my understanding is the State fish and game department may, in fact, have the ability to acquire water for those purposes under State law. So that could be conceivably an effective purchase by them.

I think then we have to look at the economic question of whether we pay, how much we pay, and what happens to the repayment capability of the Newlands project if the effect is to reduce the amount of acres that are making contributions to pay for it, and I just don't know what all that is, but if that has the effect of reducing the number of acres, it could increase the cost of water to the remaining acres, and I'm sure that the irrigators there would be very concerned about that as well.

Senator REID. We think we have worked that out, that part of it. But, anyway, I am pleased that that you are aware of the problem and you've passed the first test. That's great.

## STILLWATER WILDLIFE MANAGEMENT AREA

The next you have already mentioned, and that is Stillwater. Stillwater is important to the State of Nevada, but much more important to the rest of the country because it is part of the flyway for the migrating waterfowl that takes place very year. If we don't do something in a couple of years, it will be a desert area. As you know, thousands of fish and thousands of birds died recently because the water going in there has gone through every—anyway, it's just not good water that is going in there.

When the recent operating criteria and procedures, or OCAP, were set, and that has been within weeks and not months, there was a tentative proposal to reprogram funds for physical improvements in the Stillwater area.

There are many who have concluded that the first priority for Stillwater should be additional quantities of fresh water because no matter what we do down there in the way of physical improvements, unless there is some method of getting fresh water in there it doesn't matter what we do physically to the area.

So, Mr. Secretary, would you be willing to withhold reprogramming or a reprogramming request until we, and when I say "we" that includes your office also, determine just how much additional fresh water is required to maintain this Stillwater area before we start making physical improvements?

Secretary HODEL. Senator, I don't think we ought to be playing improvements off against fresh water. My Under Secretary, Earl Gjelde, as you know, has been very active and was a participant in crafting an agreement with the interests in that vicinity, and I believe it was a result of that agreement that one of the commitments we made was to seek a reprogramming in order to improve the quality of the refuge.

My understanding of what was intended there, and I think it's compatible with the fresh water requests that are being talked about, is that by making improvements there we might reduce the water requirement, but make the area with the water more productive so that we try to have the same net benefit to the flyway and to the fishery, but not requiring any significant amounts of additional water. We may need better quality water, and that is something still to be pursued, as you are suggesting.

I am hesitant to commit not to submit the reprogramming if the possibility is we made a commitment as a part of an agreement to your constituents to do so. That would be my hesitancy there.

Senator REID. Of course, the constituents want what is best for them, and I'm sure you do, too.

At this stage I would oppose the reprogramming. So at least let's make sure we have a meeting of the minds on that before we simply go forward with it.

Secretary HODEL. I will urge Mr. Gjelde and his staff to talk to you and your staff and go through the rationale of the relationship between the reprogramming and any further water requests. As I say, my initial instinct, and we can't give you better than that at this moment is that the two should not be incompatible.

The further problem is that because of the problems you identify with respect to what is happening there, we had a lot of water, and I don't have to tell you, but for the sake of the committee and the record there was an unusual amount of water in that area for a number of years and we saw expansion of these formerly arid, dry lake beds. Water and fish expanded and life expanded, and then as they began to contract we saw a substantial die-off.

The issue is basically trying to find a stabilizing level for that refuge consistent with the water that is available. We don't seem to have the ability to make more water, so we are going to have to find some way to use it better.

Senator REID. There is a limited amount of resources and we just have to figure out a way to best use those.

Secretary HODEL. Right.

Senator REID. Thank you, Mr. Chairman.

NEW RIVER GORGE

Senator BYRD. Let me return just for emphasis to the New River Gorge and the importance of that money that has been cut out somewhere along the line. That would result in the reduction of 6 full-time employees, cutting it back to 21 from 27. In other words, the add-on for the last year in great measure is being eliminated for this year's budget, and 6 full-time employees really adds up to about 12 if some of them are employed half time. They are there for safety in great measure, the safety and health of the visitors, river patrol, visitor safety, trash removal, and maintenance of portable bathrooms. These are not unimportant employees.

This project is going forward and I think it sends the wrong signals to the people of the community that we now want to cut back on these employees. I won't support that kind of signal, but I will support the restoration of the money.

Secretary HODEL. I understand, Mr. Chairman.

Senator BYRD. All right.

Before we call of the gentleman from Mississippi, I am going to ask Senator Reid if he will Chair the meeting from here on. The Senate will be going in at 9:30.

I thank you, Mr. Secretary. It has been a pleasure working with you.

Secretary HODEL. Thank you, Mr. Chairman.

Senator BYRD. If we don't meet again across the table here, I still hope to see you again sometime. Hope to see you down at New River Gorge.

Secretary HODEL. I have been there before and I hope to go back. Thank you.

Senator BYRD. Good. We will welcome you back there any time.

Thank you very much.

Senator REID [presiding]. Senator Cochran.

Senator COCHRAN. Thank you, Mr. Chairman.

Mr. Secretary, welcome to the committee. Let me, first of all, commend you for the excellent job you're doing as Secretary of the Interior. I think you have provided strong leadership and very wise leadership to our Government and I commend you for that.

NATCHEZ TRACE PARKWAY

When I first came to the Congress 15 years ago the first bill I introduced as a young Member of the House of Representatives was to urge completion of the Natchez Trace Parkway and to provide funding for completion of the construction of that project.

I happened to represent the congressional district that included Vicksburg, Natchez, and Jackson and other areas in the southwest corner of Mississippi along the river which is very scenic and very historic in many ways.

The Natchez Trace Parkway was authorized for construction the year I was born, in 1937, and President Roosevelt made available some funds from a discretionary account to actually commit the administration to the support of the project in response to congressional authorization.

The States of Mississippi, Alabama, and Tennessee began a partnership with the Federal Government to survey and to locate the old Native American Trail and Kentucky Boatman Trail, as it later came to be used by those who had floated down the Mississippi River to New Orleans and to Natchez would walk back home because there was no means of power. The boatmen would buy horses and ride back up to Ohio or Kentucky where they came from. So the Natchez Trace became a very well-known and well-used trail.

In 1937, the States and the Federal Government decided to survey and construct a national parkway between Nashville and Natchez. The work was begun and it is not yet completed.

I hope that, before I leave the Congress, whenever that is, the parkway project can be completed. There has been some reluctance in some years on the part of administrations who would not propose money for construction of the parkway. However, funds were always proposed for maintaining and even enhancing the parkway by constructing living history activities along the way. These have proven to be very educational and enjoyable as places for school children and others to visit as they traveled along the parkway.

Now we are within sight of completion of the parkway and not many more miles are left to be constructed. I'm glad to take note of the fact that this administration has been very supportive of the parkway. Funds have been included in the budget year after year for construction and generous funds for these living history activities have been made available.

So I don't complain about the administration's lack of support at all. As a matter of fact, I think it was President Gerald Ford who gave great impetus to the final construction effort. In 1976 as a part of the bicentennial and the effort to involve the country in a renovation of commitment to our history, President Ford included the Natchez Trace Parkway as one of those projects that would get extra support and additional funding for work that was yet to be completed.

### MISSISSIPPI RIVER NATIONAL PARK PROPOSAL

As the parkway project is completed, many have decided that it would be appropriate at the terminus of the parkway at Natchez to have a Mississippi River National Park. A park dedicated for the purpose of housing a living history experience, including antibellum homes and out-buildings, a museum and other possible elements that would be fitting to crown the achievement of these three States and the Federal Government in finally completing the Natchez Trace Parkway.

The National Park Service has had a team go to Natchez and do an assessment, a review and an appraisal of the proposed Mississippi River National Park. I wrote a letter on March 22 to you and maybe to the National Park Service Director, Mr. Mott, asking for a report on the findings of that assessment. I have not gotten a reply yet.

I'm sure that the work continues to develop that report, and I hope that a report can be completed, if possible, before we mark up this bill so that we can include appropriate language or suggestions in this legislation to provide guidance to those who will be working on making this project a reality.

I am very excited about the project. I want to include, Mr. Chairman, if I can, in the record a copy of a report that has been prepared by the Mississippi Department of Archives and History and Historic Natchez Foundation regarding the proposed Mississippi River National Park so that there will be an explanation of the details of what I am talking about.

Senator REID. That will be the order.

### NATCHEZ TRACE PARKWAY FUNDING

Senator COCHRAN. Let me just simply conclude and ask my question.

I hope that you will be able to support funding for additional construction on the parkway this year. I don't remember the exact amount of money that is being requested by the Department for construction. I hope there is some that can lead us to the completion of this project at the earliest possible time and to also include a proposal or a statement of approval for the creation of the Mississippi River National Park as a fitting terminus for the parkway in Natchez.

What is your reaction to all of that?

Secretary HODEL. Let me say, first of all, if it will keep you in the Congress as a Senator longer I hope we don't finish the project. [Laughter.]

First of all, with regard to the highway, the Natchez Trace Parkway, often the money that we use for highways within the Park System is highway trust fund money and we will get a letter to you indicating what portion of the highway trust fund money coming to the Park Service this year is targeted for the Natchez Trace. In addition, sometimes Congress appropriates money from the general fund directly to the National Park Service to build or repair roads. Natchez Trace has received both types of money in the recent past.

I must say the same thing I said to the chairman and I think I hinted at to Senator Reid earlier, that we have a problem of locating the resources to do all of the good things that we're called upon to do.

As far as a new park is concerned, we are currently in a quandary as to how to be supportive of a park that the Park Service has long wanted to add to the National Park System, which is the Tallgrass Prairie. There is a proposal before the Congress and we are trying to be supportive of it, but our problem relates to the funding.

It is very easy for us to support the addition of areas to the National Park System and it's fun to do, but we take on a commitment when we do that, to acquire land, and that means to identify the moneys necessary to acquire that land and then to operate and maintain it.

Earlier, I think before you were here, Chairman Byrd was concerned about our budgetary proposals with regard to the New River Gorge where we proposed not continuing some congressional add-ons of last year, which would mean a reduction in the funding level.

We are in this struggle, and although the Park Service's share of the Interior budget has nearly doubled since this administration came in, we are still in a position where so much has been added and we have done so much more to try to upgrade the quality of the parks that we are having to borrow from Peter to pay Paul here.

I, therefore, at least have to put a cautionary note that if we are to add a park, if there are facilities to be required or antibellum mansions to be acquired, we need to look for some kind of private sector funding and contribution to the Park System.

There is a potentially enormous, we believe, benefit to the locality from an appropriately developed park, and the beneficiaries, therefore, need to share in the cost of putting that together because, once it's on our rolls, we will have to pay for the upkeep and the maintenance annually.

Senator REID. Mr. Secretary, since we got our park you're making a lot more sense. [Laughter.]

Senator DeConcini.

Senator DECONCINI. Mr. Chairman, thank you.

## NATIONAL PARK SERVICE EMPLOYEE HOUSING

Mr. Secretary, as you know over the years I have expressed continued concern about the very poor housing conditions facing so many employees of the National Park System.

Last year under the leadership of Director Mott a report was completed by the Park Service which concluded that approximately $200 million was needed to be spent to bring employee housing up to national standards for health and safety. As you know, that report was pulled back and no funds were included in the fiscal year 1989 budget request to undertake this long overdue initiative.

What is the problem other than you don't have money?

Secretary HODEL. That's a good place to start, Senator. We talked about a small amount of money being put in, and when I say small I mean $20 million. That is a large amount of money, but relative to the size of that problem it's a small amount of money.

We saw what we would have to do in the way of additional cuts on operating activities at existing parks and existing activities in order to find even that $20 million. And in discussions with the Office of Management and Budget it became apparent that we simply had a priorities problem.

So we took a step back and said wait a minute, are there alternative ways to approach this housing problem, and we think there well can be and we are in the process of trying to identify private sector initiatives which would provide an upgrade to the housing.

It would be desirable, just as a matter of principle, it would be desirable if wherever possible we could have employees not living in Government housing. Part of the problem there, particularly when it is substandard, is your landlord is also your supervisor, and that is a very undesirable situation.

A person goes home from work and is a little upset with his boss anyway, and his wife meets him at the door and says the roof is leaking, the gas burner has blown and so forth and can we get anybody out there to fix it.

Senator DECONCINI. Yes; but how often is that going to be? I mean most park employees are very happy and they get along with their superintendents and I doubt whether there is even 5 or 10 percent of those kinds of problems going on. Isn't that kind of a cop-out, Mr. Secretary?

You take the Grand Canyon, for instance. You know, there is just no place to go. Tusayan has no housing and there is no place to go for the private sector. If there is a community next door like in Page, AZ, or some place where you could maybe encourage development and, you know, if Federal park people make decent salaries maybe they could afford an apartment or a house or something, but in the Grand Canyon, I don't know if you have been there, but it is a disgrace, and the Grand Canyon is a place that your employees are living in.

Secretary HODEL. The private sector initiatives that we are talking about are trying to find private sector financing for the construction and operation of employee housing adjacent or in the park area.

Senator DECONCINI. In other words, you might let the private sector come in and build them in the parks?

Secretary HODEL. What I learned a long time ago when I was with the Bonneville Power Administration was that we did not do nearly as good a job of designing and building our own buildings as we could get on a lease-back basis. The cost per foot of construction by the time we went through the Federal procurement process was significantly higher. We were better off to lease a building than to build it in terms of just dollars.

Senator DECONCINI. Well, do you have a plan for this, particularly for the Grand Canyon?

Secretary HODEL. There is a plan to look at several options for either partnership financing or full financing by the private sector of employee housing on site.

Senator DECONCINI. Can you send me any schedule of where you are on that plan for the Grand Canyon?

Secretary HODEL. I would be happy to give you an update on where the Park Service stands on that.

Senator DECONCINI. I realize it's hard to say that one park is more important than another. We have so many in Arizona but, gee, the Grand Canyon—one of the seven wonders of the world—to not be given some priority is a real shame. We are only talking about $5 million that we need to upgrade their housing.

Secretary HODEL. It is unfortunate, and we are not opposing this. We are going along with it and let's give it a try and see how it works. It's unfortunate that the fee proposal does not permit more flexibility for superintendents to decide what their priorities really are. At this point it's limited to research and interpretation of resource management.

Senator DeConcini. If you could send me whatever you have on the plan.

Secretary Hodel. I would be happy to.

### SANTA RITA LAND EXCHANGE

Senator DeConcini. Now, Mr. Secretary, the Arizona Director of the Bureau of Land Management and the Arizona State land commissioner worked for many, many months to put together a series of land exchanges in Arizona involving the Santa Rita land near Green Valley, AZ, if you are familiar with this.

This month I introduced legislation with Senator McCain to complete the exchanges. However, we included in the legislation a provision to transfer approximately 40,000 acres of Fish and Wildlife Service land within the Kofa National Wildlife Refuge to the BLM. This provision has been met with strong opposition from some of the environmental communities.

Are you familiar with this legislation?

Secretary Hodel. I am sorry, Senator, I am not. Mr. Itteilag, my Budget Officer may be.

Senator DeConcini. If you want to respond to it, fine. I want to ask you a specific question which you can send to me later.

Secretary Hodel. That's fine.

Senator DeConcini. Mr. Bibles out there is well respected as are the people in the Fish and Wildlife Service. They tell us that this is an absolute must, and if they don't get this Kofa National Wildlife change that every other part of the overall exchange has to go down the drain. I want to support them and I have been pushing for it.

The question I have, however, is what is the bottom line from your standpoint? I'm not asking you to cop out on your BLM manager out there, but it's important for us to know whether or not if we pass this bill without the Kofa change if you would recommend a veto and what other alternatives there might be. I would appreciate that very much.

Now, Mr. Secretary, I have a couple of other questions, one dealing with hatcheries which someone can answer.

I just want to say for the record, Mr. Secretary, it has been extremely good working with you, your staff, and your office. We have had some disagreements on different things, but I just want the record to show that I believe you are one of the outstanding Secretaries of the Interior that this country has had. You have been forthright and helpful to a State like Arizona, which is only 15 percent privately owned and the rest is in Federal lands, State lands, and Indian lands. I just want to thank you on behalf of Arizona for your willingness to pay attention to so many needs that we have.

Now if you would just give me $5 million for the housing. [Laughter.]

Thank you, Mr. Secretary.

Secretary HODEL. Thank you.

Senator COCHRAN. Senator McClure.

Senator MCCLURE. Mr. Chairman, I think this is a particularly appropriate time for me to just second the motion on what Senator DeConcini has said. This may be your last regular presentation of a budget to this committee, but I do appreciate all the work you have done and I think you are entitled to that kind of statement of support.

I thank the Senator for having made it.

### NATIONAL PARK SERVICE ENTRANCE FEES

We are now into the second year of the National Park Service entrance fees. Do you have any update about how that is working and how the money is being used and is it meeting your expectations?

Secretary HODEL. First of all, it is meeting our expectations from the standpoint that we have had essentially no visitor objection to the increased fees. Consistent with what Director Mott assured me all along, there is a tremendous attitude of support for the national parks, and our prior fee schedule was recognized by essentially all visitors as being simply unreasonably low. So we have had a good visitor response to it.

Second, I believe it is raising the kinds of dollars that were anticipated in the budget pursuant to the fee schedule that was adopted by the Congress. We had one proposal which would have resulted in a different level of funding, but this funding, as I understand it, is basically coming in at the levels we were anticipating.

The expenditures I don't know anything specific about, except that the expenditures are restricted in accordance with the language of the bill to certain particular activities, and at this moment I would have to say that I am assuming it's being spent in that fashion. I don't have a breakdown.

We initially contemplated a fee situation in which moneys were collected and dispersible in the same year. The system as it now works, we collect the fees in one year and it is appropriated by the Congress in the next. So we are requesting in the 1989 budget appropriation the moneys we anticipate collecting in 1988.

### EMPLOYEE HOUSING

Senator MCCLURE. Mr. Secretary, I know that you are aware, and I listened carefully both to the question and the comments by the Senator from Arizona on your answer with respect to employee housing. I guess I might look at employee housing in two different kinds of categories. One is for the permanent employees, the year-round employees, and the housing for those who are just temporarily there for summer seasons.

You are aware I know of the situation at Yellowstone National Park where we now have developed a substantial winter visitation with buildings that were never designed for year-round habitation and the employee housing simply isn't adequate for that kind of use. Something has to be done, and I think you are making some plans to move on the Yellowstone situation, am I correct?

Secretary HODEL. I believe that is correct. I have promised to provide Senator DeConcini with an update on what we are doing broadly.

Our thinking was this. Even if we were able to squeeze $20 million out of other park activities and put it into employee housing, it wouldn't result in $5 million going to the Grand Canyon where that is needed and whatever is needed at Yellowstone. It would be a dribble at the Grand Canyon and a drab some place else and we wouldn't solve our problem.

We think that if we can find the proper formula so that it is economically feasible for people to come in and build the housing to our standards for us, we think we can move much more rapidly than would otherwise be the case.

Senator MCCLURE. Do you need any new legislation to permit you to do that?

Secretary HODEL. We may, but I don't know of it at this moment.

Senator MCCLURE. When would you expect to be able to tell us as to whether or not you need legislation?

Secretary HODEL. I am afraid I do not have the Park Service schedule in mind so that I can respond to that, but I would be happy to include that in the response to Senator DeConcini, which I'm assuming you would also like to see.

Senator MCCLURE. Yes, please. Thank you.

Mr. ITTEILAG. Senator, if I could comment. We had in the Commerce Business Daily a request for interested private parties to come back to us with park specific proposals on housing. So it may be that based on that response that some type of legislation would be appropriate if it is a particularly unique arrangement. So perhaps we will know more specifically about that say by the end of the summer.

Senator MCCLURE. Well, as you know, for much of the, and let's take Yellowstone in particular, any park that is in the northern latitudes, whatever construction there is has to take place starting in the spring and finishing in the fall. So if we wait until the end of the summer we are well into next year before we even start to approach the problem. So we have lost—I use the term "lost 1 year"—we are 1 year away from any solution.

Secretary HODEL. Well, Senator, we are, you're correct and it is a terrible lead time problem. But if we were seeking to do it with Federal money, I would be before you today with a request for $20 or $40 million or whatever it might be, and we would not receive the appropriation until sometime later this year.

When we received it, whenever that might be, whether it's early or late fall or early winter, we would then have the money to begin the planning process, and the chances are we would miss next season anyway.

If, in fact, we can come up with an acceptable plan, and I can't guarantee that, but that is our hope, if we can come up with an acceptable plan from the private sector, they could conceivably contract and be on the ground building——

Senator DECONCINI. Would the Senator from Idaho yield?

Senator MCCLURE. I would be happy to.

Senator DECONCINI. That bothers me a little bit because I think about 2 years ago we put in language in the Appropriations Committee report directing your office or the Park Service, I believe, to study this issue and make a proposal to the committee. Mr. Mott made a study and made a proposal, and as I recall part of that was an analysis of what you're talking about, private housing. He had, my recollection is, a lot of reasons why this wasn't too feasible because you're putting private developers on park land and rents are going to be more than what they presently are.

Anyway, as you know, that proposal that Mr. Mott developed that you pulled back, apparently said, hey, the best way to go is $200 million. Obviously you don't have $200 million, but $20 million is 10 percent, and that's a beginning. In 10 years you could complete the project.

I don't want to discourage you from new innovative approaches that we have never heard about, but I just want to call to your attention the fact that we have been down this road once before.

I thank the Senator from Idaho.

Senator REID. Do you want to take back all those nice things you said? [Laughter.]

Senator DECONCINI. Not at all.

Senator MCCLURE. I understand that, and I know the Senator knows at least as well as I the difficulty this subcommittee has in stretching its resources over the requirements after the 302B allocations. This committee didn't suffer as much as some wished we had, but nevertheless it's less than we need. That has been the story for each of the last several years as the budget is constrained and money goes to what the Congress decides are high priority items. While we want housing, there are others who want new parks and new land acquisitions, and there just hasn't been enough money to go around. I know the Senator knows that and I know the Secretary knows that. But I do think there is a need out there that simply isn't met.

Very frankly I was, and I'm searching for the right adjective. If you talk about the food handling facilities and the meal preparation facilities at Yellowstone in the winter time, I really do believe that any State public health service that went in to inspect those would condemn them. They are simply inadequate, and I don't say that to be dramatic about it. The problem is bad, it simply isn't going to get better and it needs to have some attention.

### NATIONAL PARK SERVICE—MANAGEMENT ACTIVITY

I understand that all the park superintendents are getting together next week for the first time in 10 years. It seems to me that that is such a good idea that I wonder why it hasn't happened before.

Secretary HODEL. Senator, I do not know. All I know is that when it was announced that they were getting together the only commentary until your favorable comment here was a brief clip in the paper criticizing the cost of bringing them all together.

Senator MCCLURE. Well, I understand. There is nothing you do in Government that isn't going to be criticized.

Secretary HODEL. The argument I make is that training and team building communication and the like on the part of our management, is an essential part of it. I frankly was surprised to find out that we hadn't done this kind of thing for 10 years and it should be done regularly and it should be done routinely.

Senator DECONCINI. If the Senator will yield, where are they meeting?

Secretary HODEL. Grand Teton National Park.

Senator DECONCINI. Not the Grand Canyon. [Laughter.]

### ARCTIC NATIONAL WILDLIFE REFUGE

Senator MCCLURE. I know that the administration is planning, as many of us are, to have some action take place in the Arctic National Wildlife Refuge with respect to oil and gas exploration and we hope that we can manage to move that forward.

What revenue assumptions are included within the budget?

Secretary HODEL. The assumption is that in 1988 there will be a bill which permits leasing, and the leasing will take place in such a way that the first sale would be held in 1990 and produce $2.1 billion in bonus bids, and that the next sale would take place in 1992 and produce $1.2 billion and that there would be annual rents of $600,000 or so based upon that after the first sale, and $600,000 a year more after the next sale, but that there would be no royalties until after the year 2000 because of the length of time that it takes for production to begin. So revenue assumptions don't show up in out-year forecasts.

Senator MCCLURE. Now you're aware of the form that the legislation is taking in its several different iterations around here, and I would hasten to add that all of that $2.1 billion is not money available for expenditure wherever you may allocate it within the budget process in the form of the legislation that has passed committees.

Secretary HODEL. Senator, I opened by a comment to the chairman, Senator Byrd, that this was probably, as you have indicated, the last time I will be presenting an Interior budget to this committee.

I have learned in the course of my submission of Interior budgets that the out-year figures in our budget shouldn't occupy too much of my attention because they seem to change dramatically from the time we project next year and the year beyond. It's tough enough for us to deal with this budget year.

So we have to put a figure in when we put this budget together that has some basis in expectation, which is we were proposing and are proposing that there be a certain kind of leasing arrangement. The Congress may well dispose of that in a number of different ways which will change all those expectations, including what happens to the revenues.

At the present time it appears as an impulse to allocate at least 150 percent of the revenues to other purposes.

Senator McClure. Well, I was just thinking of some of that housing we need to examine. [Laughter.]

### PALAU FUNDING

If I recall correctly, you had indicated that the Department was looking for some opportunity to reprogram money for the Palau situation. Have you been able to find a place from which the money can be reprogrammed?

Secretary Hodel. We have found a source that we will request Congress to permit us to permit the reprogramming fund, and it's the "Capital deficit restoration" account.

What is the correct name of it?

I've said it now so Mr. Itteilag can't remember it. [Laughter.]

It is the "Deficit reduction" account. That has $8.5 million in it in fiscal year 1988 and we are suggesting that something slightly in excess of $3 million—we will request, but we have not yet requested something I believe slightly in excess of $3 million?

$3.5 million will be requested for reprogramming for the current operations of Palau.

Senator McClure. You have identified that, and I assume that is working its way through the system. When can we anticipate that we might receive that request?

Secretary Hodel. I am advised that letter was signed Friday. I don't know what that means about delivery to the Hill.

Senator McClure. It's out of your hands now.

Secretary Hodel. I am advised by committee staff that it has been received, but that would have been today probably or Friday afternoon.

Senator McClure. All right. Thank you.

### DOMESTIC OIL AND GAS RESERVES

Mr. Secretary, the Geological Survey and the Minerals Management Service have made available for peer review to the National Academy of Sciences and the Association of American State Geologists working papers for estimating domestic oil and gas reserves.

Why are you taking this step?

Secretary Hodel. The original report that the MMS and the Geological Survey were coming out with on projected gas reserves and potential gas was interpreted as suggesting there was a sharp decline in the anticipated volumes available. This caused considerable consternation among energy interest in the United States and there was some challenge made as to whether or not we were applying the proper procedures and methodology in coming to these conclusions.

We felt that with something that could have as significant an effect upon the industry and upon the energy supply for the country as that could have, we thought it would be appropriate that it be carefully reviewed by those knowledgeable in the industry and, therefore, we are proceeding in that fashion.

Senator McClure. When do you expect that report to be available?

Secretary Hodel. I'm sorry, Senator, I don't know. I don't have a target date in mind. I thought it was within the next few months.

Senator McClure. Could you provide that for the record, please.

Secretary Hodel. I will.

Senator McClure. I am particularly pleased to note that the MMS and the Geological Survey are working together on that report.

Secretary Hodel. It's a landmark situation. [Laughter.]

Senator McClure. Almost. No pun intended. [Laughter.]

Mr. Secretary, I have some other questions that I will submit for response in writing.

I thank you, Mr. Chairman.

Thank you, Mr. Secretary.

## POLITICAL APPOINTEE CONVERSION TO CAREER STATUS

Senator Reid. Mr. Secretary, as any administration enters into its last year, there is no doubt a temptation to move political appointees going into career jobs. Is this going to occur in your Department?

Secretary Hodel. I hope that it will, but I hope that it will only in accordance with the rules and where it is appropriate. I do not believe that it is inappropriate for people who have served and served well and who have achieved expertise and who qualify for positions to be properly identified as candidates and if they survive the selection process to be selected.

I would strongly object and oppose any implementation of an effort to put people who are political appointees into career positions simply as a means of providing them permanent employment, but I do not think that we ought to foreclose people who are properly qualified in accordance with proper administrative procedures from being so included.

This is a matter which the Office of Personnel Management watches extremely closely and is——

Senator Reid. That is what worries me. [Laughter.]

Secretary Hodel. Well, I think if you look into it, you will find that they have been scrupulous in objecting if they suspect that in any way there is somebody being given an edge because they are not——

Senator Reid. Mr. Secretary, I appreciate your being so candid in this. It's a response that I appreciate. I think it would be a good idea though that beginning in the month of June that you send the committee a monthly status report of the schedule C personnel who have been given career status.

Would you do that?

Secretary Hodel. All right.

Senator Reid. Mr. Secretary, we, of course, appreciate your testimony today.

## ADDITIONAL COMMITTEE QUESTIONS

We have a number of additional questions as has been indicated by Senator DeConcini and we will submit these for your response in writing. We, of course, would appreciate your prompt attention to these questions that we will submit.

We intend to mark up this 1989 appropriations bill for the Department of the Interior within the next few weeks.

Again, thank you very much for being here so bright and early and we wish you well.

Secretary HODEL. Thank you. Again, I appreciate the opportunity to be here, and I thank all of you for the sometimes exciting but always excellent times we have had together. I appreciate that.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## QUESTIONS SUBMITTED BY SENATOR DENNIS DeCONCINI

Question: In FY 88, the Congress appropriated $3.5 million to continue the in situ demonstration project at Casa Grande, Arizona. $1 million of this amount was to be spent on in-house laboratory work for the Bureau and the remaining $2.5 million was to be spent on the research project itself. The Congress also included language calling for cost-sharing with the non-Federal participant. Can you tell me where you are with the '88 program and when you expect to complete negotiations on the cost-sharing?

Answer: Negotiations with the private Cooperator regarding implementing the cost-sharing project are continuing. On March 16, 1988, the Bureau met with the ASARCO Inc. representatives to negotiate terms of a Cooperative Agreement. The manner in which the Cooperator would cost-share was not completely resolved. On May 3 the Bureau received a revised proposal from ASARCO Santa Cruz, Inc. Technical personnel and contracts specialists have evaluated this proposal. Additional negotiations are necessary to resolve remaining differences in the cost estimate for the total project, the method of cost sharing, and the amount of work that can be accomplished for the funds allocated for FY 1988. It should also be pointed out that the Cooperator in this project is a 50-50 partnership between ASARCO Santa Cruz and Freeport Copper Co. Freeport has not agreed to the terms presented in the proposal nor signed the Memorandum of Agreement to proceed with this cooperative effort with the Bureau. Until Freeport agrees in some acceptable manner to work with the Bureau on this project, the negotiations can not be concluded. Freeport is expected to sign the necessary agreement by late May.

Question: Since this is to be a 5-year project, it seems to me that the Bureau and the non-Federal participant would be better served by the formulation of a multi-year contract. Wouldn't you agree?

Answer: The Bureau still believes that this project should be 100 percent funded by industry. However, if Congress continues funding for this project, it would be most efficient to authorize the entire Government share of the costs at one time for a multi-year contract. The contract would be written with phases that correspond to major milestones in the project, such as: (1) constructing a well field, (2) constructing the recovery plant, (3) operating the experiment, and (4) closing the test site.

Question: I see that no funds were requested to continue the demonstration project in FY 89. If funding were not a problem, what does the Bureau expect it could spend in FY 89 to keep this project on a 5-year schedule?

Answer: Based upon the amount proposed to be contributed by the Cooperator in FY 1988 and the amount appropriated by Congress in FY 1988, a total FY 1989 funding of $7 million would be required to maintain a 5-year schedule.

Question: The Congress appropriated, in FY 1988, $3.5 million to initiate an in situ copper leaching demonstration project at the Santa Cruz site near Casa Grande, Arizona. Could you give me a brief summary of where you are with the project at this point?

Answer: The Bureau has received the draft generic design manual for in situ copper mining operations. One volume of this draft described an experimental design for the proposed Casa Grande project. Over the next 13 months, the FY 1988 funding will provide (1) specific test site selection, (2) laboratory and field tests to determine solution flow characteristics of the site chosen, (3) final experiment design, (4) hydrology and geology information required for environmental permits, and (5) environmental permit applications. The Bureau expects to conclude negotiations with the Cooperator in time for these activities to begin in July.

Question: Of the $3.5 million, $1 million was directed to the Bureau's continuing in situ laboratory research program. Could you give me a summary of that effort, and how will it directly relate to the demonstration program?

Answer: The Bureau has expanded its capabilities to leach core samples obtained from the Santa Cruz site. Tests are being conducted on cores to determine leaching characteristics of ore from the site. At the conclusion of these leaching tests, some of the cores are being flushed with distilled water to simulate restoration phases. Leaching solutions and flushing solutions are being analyzed to determine changes that occur as a function of time. Researchers are also examining the pre- and post-leach cores to relate changes in the mineralogy occurring as leaching proceeds. Such laboratory tests are necessary to relate results from the field experiments to other potential applications of in situ mining and specifically to commercial operations that may be developed on copper oxide deposits.

Question: How much has the Administration requested to continue this laboratory research in FY 1989? Is this work directly related to the Casa Grande project? How much would the Bureau need in FY89 to fully continue research efforts that would be conducted in support of the purposes of this project?

Answer: The Bureau has not requested any funding in FY 1989 for laboratory studies directly supporting the Casa Grande project. The Bureau has recommended that the project be 100% industry funded, and consequently any additional laboratory testing in direct support of the project would be low priority. If Congress directs the Bureau to continue this project, in-house funding in the amount of $850,000 would be required to conduct the necessary support tests.

Question: Could you briefly describe the purposes of the in situ copper leaching project? What technology advances would you anticipate could be accomplished?

Answer: The purpose of this project is to (1) obtain engineering parameters that will enable mining companies to translate laboratory experimental results and models into operational feasibility, (2) develop cost information, and (3) demonstrate the feasibility of the in situ mining concept applied to copper oxide deposits. The major accomplishment would be to provide technology for a method of simultaneously achieving the following results: (a) forcing solutions through undisturbed rock, (b) retrieving those solutions, and (c) recovering metals from those solutions with minimal disruption to the environment.

Question: What would be the importance to the Bureau of Mines of the gains in both technology and knowledge from the project?

Answer: The Bureau has committed significant funding from its base program to research on in situ mining techniques. Results from the Casa Grande project may help direct this basic and generic research. Some of the results will apply directly to solving problems in deposits other than the copper oxide ones toward which they are directed.

Question: How important would these technology advances be to the copper industry and to related industries?

Answer: If the technical advances materialize as envisioned, the copper industry would have the technology needed to produce copper more efficiently, from deposits previously considered uneconomic, and with minimum environmental disruption. To the extent that the technology would apply to other metal ores, companies holding such deposits would also benefit.

Question: What exactly is the cost advantage in using this process over traditional copper mining techniques?

Answer: The potential cost advantages in lower labor requirements, reduced energy consumption, lower capital expenditures, and lower environmental restoration costs could result in an estimated decrease of 30 percent in the costs of producing copper.

Question: From your previous studies, is there any indication that these technologies would significantly improve domestic competitiveness? Is there any indications of what the economic benefits would be to the country?

Answer: The similar technology researched by the Bureau for uranium helped introduce a competitive sector of the uranium mining industry. For copper, the Bureau believes that the economic benefits of in situ mining would make U.S. copper competitive with most foreign-produced copper. The economic benefits to the Nation would accrue from reduced trade deficits if more of the raw products for industrial consumption were domestically produced.

Question: The in-situ project, as approved and funded in FY 1988 by Congress, is clearly a multi-year project, but it is my understanding that the Administration has not requested FY 1989 funding for the project. What is your best estimate at this time as to what the funding needs will be in FY 1989 to continue the project without interruptions or delays?

Answer: The Bureau's budget contains $3.2 million for general in situ research, and some of the results of these studies may be applicable to the project. However, funding of $7 million would be required to continue the project without delay.

Question: It is my understanding that there are a number of environmental advantages with this technology. For example, it precludes the need for an open pit mine, and that there is very little surface disruption. Is that correct?

Answer: Yes. Instead of miners removing the ore from an open pit and transporting it to a processing site, in situ mining relies on weak chemical solutions to dissolve the target metal from the ore in place. The surface is disrupted only to prepare the site for drilling wells to inject and recover the solutions. The processing plant for these solutions is generally considerably smaller than one necessary to process ore from an open pit. Also, there are essentially no tailings from an in situ leaching operation which precludes establishing the large tailings disposal ponds that are a consequence of concentrating ore produced from open pit and underground mines.

Question: I also understand that it would eliminate the need to smelt the copper and would eliminate the resulting risk of air pollution. Could you explain?

Answer: Ores received from conventional mining are often smelted to separate the metal from waste rock and to convert the metal from a form in which it is chemically combined with other elements to an uncombined metallic form. The element sulfur frequently combines with copper in ores and can be emitted as the pollutant sulfur dioxide during the smelting process. In in situ mining, solutions separate the copper from most of the unwanted elements underground by dissolving the copper in place. Copper is recovered from solutions on the surface. Most of the unwanted elements are thus left in the ground as harmless minerals.

Question: I am told that a solution is used to leach the minerals from deep native ore bodies, through the use of injection wells. What happens to the solution once it is used? Can it be reused?

Answer: The solutions, after the target metal has been recovered, are regenerated and recycled to the injection wells. For economic and environmental reasons, an operator would reuse essentially all of the leaching solutions.

Question: Why is the ASARCO-Freeport Casa Grande site appropriate for this kind of demonstration project?

Answer: The Casa Grande/Santa Cruz site represents a typical copper oxide deposit that would not be developed without the technology being studied. It has not hosted earlier mine development activities that would skew the experimental results. The copper in the deposit occurs in natural fractures in the rock, the geologic condition best suited for in situ solution mining. The copper mineral is readily soluble.

Question: I recently read an article in which a geologist of the Bureau of Mines stated that in situ operations are safer in many ways, but that "...there could be loss of solution and resulting contamination of other zones during the process." Could you describe the chances of this occurring at the Casa Grande site during this demonstration project?

Answer: There may be a slight risk that solutions could escape from an in situ solution mining site. Indeed, much of the Bureau research focus has been to minimize those chances. The Bureau strongly believes that contamination can be confined to the actual leaching zone and that, upon completion of leaching operations, the zone can be restored to its original water quality. The Bureau conducted considerable research in the 1970's and early 1980's on ways to safeguard aquifers during uranium in situ mining. Through this research, the Bureau helped develop techniques to keep the leaching solutions within the leaching zone, methods to detect and recover solution excursions from a leaching zone in the event of equipment malfunction, and the means to restore leaching zones to their original water quality after in situ mining is completed. Several uranium deposits have been commercially in situ mined and restored without damage to the aquifers. Much of this technology will provide the foundation for methods that can be applied to copper deposits.

Although the Bureau believes that the chances of contamination at the Santa Cruz site are very slight, one of the purposes of the project is to test possible solution-control strategies in a typical copper oxide deposit to provide assurance that water quality can be protected. The Bureau has worked very closely with State of Arizona agencies on water quality issues and permitting requirements for in situ mining, including the proposed project. These agencies will closely follow the project to find out how well the solution control and restoration methods work. The State seems to agree that the proposed project provides the best way to obtain the information that will enable it to judge future commercial permit applications.

Question: What precautions could be taken to make sure this doesn't occur? What monitoring efforts will be necessary?

Answer: The initial site activities include extensive hydrologic and geologic investigation to allow engineers to design the experiment to reduce the chances of contamination to essentially nil. If these investigations reveal undesirable conditions, the project will be terminated. The requirements for monitoring will be dictated by the State of Arizona during the permitting process. It is expected that several monitor wells will be required to allow engineers to monitor the water quality in the formations above, below, and adjacent to the experimental site.

Question: I doubt that there are citizens anywhere in this country who are as knowledgeable and concerned about the ground water as the people of Arizona, and people who live in the Casa Grande area in particular. The State has passed legislation affecting both the quantity and quality of ground water. In fact the Casa Grande site is an "Active Ground Water Management Area." What efforts are being planned to workwith the public and private sector leaders, other concerned citizens, and the public in general, to keep them informed of all aspects of this project? What efforts are being taken to solicit the expertise of local leaders and experts?

Answer: The Bureau is very aware of the State and local concern over water pollution. Bureau researchers closely followed the progress of the recently enacted legislation on water quality. They also worked very closely with personnel of the Arizona Department of Environmental Quality and the Department of Water Resources to establish an experimental plan that would enable them to better judge the desirability of approving future commercial enterprises. At each major step of the project, information will be presented to such agencies. The Bureau has worked under similar circumstances with state agencies in Texas and Wyoming to help resolve permitting requirements for in situ mining of uranium. It is through the permitting process that the state agencies bring the public into the proposed action. The subcontractors from the private sector that have been proposed for the experiment have wide experience in working within the State of Arizona regulations on water quality so that the available local expertise is integrally linked to the field experiment.

Question: Would you describe this cost/sharing arrangement as beneficial to both parties? Could this arrangement be considered a model for similar projects?

Answer: The Bureau supports the concept of cost-sharing for those projects that have moved beyond fundamental, basic research and into the more applied realm. The Bureau can obtain services and facilities that would not otherwise be available; the industry cooperator obtains immediate and direct technology transfer. The costs to the Government for conducting the research are lower if an industry cooperator picks up part of the bill. Since the Bureau is still negotiating the terms of its agreement with the Cooperator, it is too early to judge the suitability of the arrangement for other projects.

Question: The Conference Report also directed the non-federal partner to assume operational management of the project and directed the Bureau to contract for administrative services. How is this being accomplished?

Answer: The Cooperative Agreement being negotiated with the non-federal partner provides for the partner to manage and administer the project with overview by the Bureau. Costs for administration and management have been included by the partner in the cost proposal received by the Bureau.

Question: What efforts are underway to coordinate the research and operation of this project with similar research programs recently funded for the University of Arizona by the GSA?

Answer: The University of Arizona recently received Generic Center status under the Mining and Mineral Resources Research Institute program administered by the Bureau to conduct related studies. The Bureau of Mines Twin Cities Research Center has agreed to exchange information directly with the University of Arizona on in situ solution mining research. Bureau researchers have worked closely with Dr. Hiskey, Director of the University's Mining and Mineral Resources Research Institute, on in situ mining, which should facilitate this interaction. The emphasis of Dr. Hiskey's program centers on the hydrometallurgy of leaching copper sulfide deposits. The Bureau is not planning conflicting studies. The Bureau periodically consults with Dr. Hiskey on hydrometallurgical aspects of in situ mining of copper oxide deposits.

Question: What support or assistance is possible from other Federal agencies?

Answer: The U.S. Geological Survey helped conduct preliminary investigations of the Santa Cruz site. In addition, the Survey has participated in planning the field experiment and likely will conduct some of the geologic and hydrologic investigations.

Question: Could you briefly identify the State and Federal permits that will be necessary to initiate and conduct the project?

Answer: The permits necessary to conduct the project, obtained by the cooperating mining company, include: two Federal permits under the Environmental Protection Agency's Underground Injection Control Program--Class III authorization by permit for commercial operation and Class V authorization by rule for experimental operations; from the Arizona Department of Environmental Quality, an Aquifer Protection Permit; from the Arizona Department of Water Resources, an Authorization to Withdraw Ground Water and an Authorization to Drill; from the Pinal County Planning and Zoning Commission, a Facility Siting and Building Permit; and from the Pinal/Gila Counties Air Quality Control District, an Air Quality Installation Permit.

## CONGRESSIONAL WITNESSES

### STATEMENT OF HON. ANTHONY C. BEILENSON, U.S. REPRESENTATIVE FROM CALIFORNIA

Senator REID. We now have some congressional witnesses that have agreed to come.

Following the suggestion of the majority leader, the subcommittee chairman, the witnesses will be called in the order they appeared.

The first witness this morning will be the Honorable Anthony C. Beilenson from California.

Please proceed.

Mr. BEILENSON. It's good to see you all and I appreciate very much this opportunity to testify.

If I may, Mr. Chairman and Senator, I would just summarize my request and submit my entire statement for the record, the one that I have just given to you.

Senator REID. Your full statement will be made part of the record and I appreciate your summary.

Mr. BEILENSON. Thank you, sir.

We appreciate very much the funding that Congress has made available in the past several years for the Santa Monica Mountains National Recreation Area especially in light of the fact of the lack of support for parkland acquisition anywhere really in the country by the Reagan administration, and we hope very much that you will be able to support some additional funding for land acquisition in fiscal year 1989.

The Park Service has acquired more than 13,000 acres in the Santa Monicas. It's a good start, but more needs to be done. Much of the land there is threatened by development and the longer we delay purchasing it, the more we will pay for it and the less we will get. Slowly but surely, nonetheless, the Santa Monica Mountains National Recreation Area is becoming the kind of park that we can all be proud to have as a part of our National Park Service.

I am here to ask this subcommittee, as we have asked your counterpart in the House headed by Mr. Yates, to try to appropriate $75 million, the balance of our original authorization over the next few years. That would be an appropriation of $10 or $15 or $25 million in each of the next few years.

We have had long conversations recently with the Director of the National Park Service, Mr. William Penn Mott. Mr. Mott actually came to me, came to us expressing great interest in completing the park, and he has proposed a plan for spending $76 million to do just that to the total of our original authorization.

He has also met with me and with park supporters out in Los Angeles to urge us to let him know that what we think ought to be acquired. Actually there is much more agreement than disagreement about what lands should be purchased, and we believe that we can get much more land for the $75 or $76 million than he does. We also think that all of the lands that are in the Park Service's current land protection plan should continue to be candidates for acquisition although obviously we can acquire them all.

On that point and for the record I want to clear up also at this point, if I may, a misconception about the cost of land in the Santa Monicas. It's not nearly so expensive as many people have suggested. The average cost per acre of land already acquired in the park has been about $5,800, which is in line with, or slightly less actually than the cost of similar recreation areas across the Nation, including Cuyahoga Valley and the Indiana Dunes National Lakeshore, and a good deal less than Chattahoochee National Recreation Area.

I also want to say that State and local governments strongly and actively support the park. The State of California itself has already contributed $159 million to acquire 43,500 acres of parkland in the Santa Monicas, much of it since the NRA was created in 1978.

And if our park bond issue is approved 2 weeks from tomorrow, as it apparently will be overwhelmingly, the State will have $30 million more with which to acquire land solely in the Santa Monicas.

So the State has been very active and supportive and so has Ventura County, the city of Los Angeles, and the smaller cities in the area have been very supportive of the NRA as has the county of Los Angeles.

Although frankly some of its zoning decisions have been inconsistent with the Park Service's goal of maintaining open space, the county strongly supports it, too, although as I said parenthetically it could have been more helpful than it has been.

I have submitted to you, sir, and listed in the addendum to my prepared statement are properties we would like to see the Park Service acquire in the coming fiscal year and we have spelled out in detail why it's urgent to acquire these particular lands right now.

And, finally, Mr. Chairman, I simply want to emphasize that land in the Santa Monicas is really a quite worthwhile investment for the Federal Government, and because of the huge population of the Los Angeles area and the huge number, between 8 million visitors from outside the State who come there each year, this park has the potential to be the most frequently visited of any unit in the National Park Service.

In terms of providing outdoor opportunities for the greatest number of people, there is really no better use of our scarce Federal park dollars than continued land purchases in the Santa Monicas.

And, furthermore, and again finally, buying land in the Santa Monica Mountains now will save the Federal Government money in the long run because land in the Santa Monicas is extremely prone to fires, floods, and mud slides.

If the land is developed instead of purchased for the park, we are almost certain to pay exorbitant amounts in Federal disaster relief for the increasing number of homeowners there who become victims of natural disasters.

PREPARED STATEMENT

So I thank you again very much, Mr. Chairman and Senator McClure, for this annual opportunity to come and speak to you about our park. I hope you will be able to help us out this year.

I will be happy to respond to any questions.

[The statement follows:]

## STATEMENT OF HON. ANTHONY C. BEILENSON

Mr. Chairman, I appreciate the opportunity to testify before your subcommittee in support of funding for the Santa Monica Mountains National Recreation Area (NRA), which is located partially in the congressional district I represent. We appreciate the funding Congress has made available in past years for this project, and we hope that additional funds will be forthcoming for fiscal year 1989.

Because Congress has appropriated at least some funds almost every year for the Santa Monicas--despite the Reagan administration's refusal to provide any funding in its budgets--the National Park Service has been able to acquire some key properties and to establish some outstanding visitor service programs. Slowly but surely, the Santa Monica Mountains NRA is becoming the kind of park that we all can be proud to have as a part of our national park system.

But much remains to be done. We have acquired just over one-third of the land proposed for acquisition in the National Park Service's land protection plan. Many properties that the Park Service hopes to acquire are threatened with development and will be lost for public use if more funds are not forthcoming soon. Even if they are not developed, rising land prices in the area will make them more expensive. Thus, if we delay purchasing the land, we will end up spending more for it later--and getting less of it.

The 1978 law that created the Santa Monica Mountains NRA authorized $155 million for land acquisition and established a schedule for spending that amount over the following five fiscal years. Unfortunately, four years after all the monies for land acquisition were to have been appropriated, only $80 million in total has been made available for this park. Part of the authorization--$30 million for state grants--elapsed before it was ever appropriated.

I would like to ask this subcommittee, as we have asked your counterpart in the House of Representatives, to make a commitment to try to appropriate the balance of the original $155 million authorization over the next three to five years. That would require appropriating $75 million, or between $15 and $25 million in each of the next few years until that total is reached.

In the last several months, the Director of the National Park Service, William Penn Mott, has indicated great interest in completing the acquisition of this unit, and has proposed a plan for spending $76 million in the Santa Monicas for that purpose. In addition to suggesting his own plan, he has met with me, and with park supporters out in Los Angeles, to ask us our views on what lands should be acquired.

Fortunately, there is more agreement than disagreement between the Director and park supporters about what lands should be purchased; however, we think Mr. Mott is underestimating the amount of land that could be acquired for $75 million. We would like to see all the lands that are currently proposed for acquisition in the Park Service's land protection plan remain active candidates for acquisition.

For the record, I would like to clear up a misconception about the cost of land in the Santa Monicas, which people seem to think is more expensive than it really is. The truth is, the flat, developable lands that NPS needs to acquire for activity sites are expensive, but most of the canyon and trail lands are not. The land acquired thus far in the Santa Monicas has averaged about $5800 per acre. That figure is in line with the average cost of land in Cuyahoga Valley NRA and Indiana Dunes National Lakeshore, and is actually much less than the average cost of land in Chattahoochee NRA.

Another myth about the Santa Monicas is that state and local governments aren't doing enough to contribute to the park or don't support it. Just the opposite is true. The state of California has spent $159 million to purchase about 43,500 acres of park land within the Santa Monica Mountains NRA--much of it since the NRA was created in 1978. The City of Los Angeles and smaller cities in the area have been extremely supportive of the park, as have dozens of homeowner and civic groups in the area. Ventura County, which covers part of the NRA, has also been very supportive of expanding park lands in the mountains. The mistaken impression about lack of local support probably stems from some of Los Angeles County's zoning decisions which have been inconsistent with NPS's goals for maintaining open space--but, in fact, Los Angeles County does support the federal land acquisition program and is expected to approve a resolution to that effect this week.

For FY 89, we are seeking an appropriation that would provide for three critically important acquisitions: a 314-acre property in Medea Valley; a 752-acre property in Lower Zuma Canyon; and 2,033 acres of land along the Backbone Trail and Upper Zuma and Trancas Canyons. Descriptions of these lands, along with the reasons their acquisitions are urgent, are listed in the addendum to this statement.

Finally, Mr. Chairman, I believe strongly that the purchase of land in the Santa Monicas is truly a cost-effective use of our scarce federal funds. Already, more than half a million people visit the federal lands within the Santa Monicas annually. The mild climate of Southern California invites year-round usage from the eleven million people who live within an hour's drive of the park as well as the many millions of out-of-state visitors to Los Angeles each year who are using this park in increasing numbers. In terms of providing outdoor recreational opportunities for the greatest number of people now and in the future, there is probably no better use of park service funds than the continued acquisition of park land in the Santa Monicas.

Furthermore, buying land in the Santa Monica Mountains now will save the federal government money in the long run. Because land in the Santa Monicas is extremely prone to fires, floods, and mudslides, if the land is developed instead of purchased for the park, we are almost certain to pay exorbitant amounts in federal disaster relief for the increasing number of homeowners there who become victims of natural disasters.

We very much appreciate the funds that have been made available for the Santa Monica Mountains NRA in the past, especially in light of the budget constraints Congress has had to operate under during the last few years. We hope to have your support in appropriating the balance of the park's original authorization over the next three to five years.

Thank you, again, for the opportunity to testify and for your consideration of this request.

## ADDENDUM

### Santa Monica Mountains National Recreation Area Acquisition Priorities for FY 89

Medea Valley - Whizin property
Acreage: 314
Estimated cost: $10 million
Description:

Medea Valley is one of NPS' most important activity sites, since it is one of the few relatively flat areas of land in the park. NPS acquisition of the Whizen property, which adjoins NPS-owned Paramount Ranch, would provide the large expanse of land needed for structured recreation uses and protect the investment NPS has already made in this area. This property would also provide a critical link in the major north-south trail in the mountains.

It is urgent that the Whizen property be purchased as soon as possible because development is imminent. The owner has already obtained all the permits needed to build 160 homes on the property and could begin construction by the end of this year. Loss of this property to development will result not only in a smaller activity site in Medea Valley, but also a less scenic site, since the existing vistas of open space would be replaced with housing. Furthermore, the development will require the channelizing of Medea Creek, which would probably result in flooding of the Paramount Ranch property and the destruction of valuable vegetation there.

Lower Zuma Canyon - State Conservancy property
Acreage: 786
Cost: $3 million/$6 million
Description:

Zuma Canyon contains rare and valuable wildlife and is one of the most ecologically important areas in the entire park. NPS has made the acquisition of Zuma, and the adjoining canyon, Trancas, one of its highest priorities.

In 1985, NPS and the state Santa Monica Mountains Conservancy together purchased a 1500-acre parcel in Lower Zuma, for $8 million ($2 million provided by NPS, $6 million by the Conservancy). By working together, they were able to obtain the property for $4 to $6 million below its privately appraised value. The agreement, however, stipulated that the Park Service would reimburse the Conservancy for its share by the end of 1988. If the Conservancy is not reimbursed by that time, the land is to be put on the market.

If Proposition 70, the park bond initiative on California's June ballot, is approved, then the Conservancy will be able to make up $3 million of the $6 million from the new state park funds, thus relieving NPS of half of the owed amount. If the initiative doesn't pass, then NPS must reimburse the Conservancy for the entire $6 million--or lose this extremely valuable property. Thus, it is imperative that NPS have the necessary funds this year.

## Backbone Trail Corridor/Upper Zuma and Trancas Canyons

Acreage: 2,033 (103 tracts)
Estimated cost: $11.8 million
Description:

The Backbone Trail, when complete, will be a continuous 55-mile hiking and horseback riding trail linking public lands from east to west throughout the recreation area. Currently, about 11 miles of the trail are still unprotected.

Acquisition of the western segment of the trail, which will include lands in Upper Zuma and Trancas Canyons, is a high priority because it will achieve two of the most important goals for the park: protection of habitat in the two ecologically sensitive coastal canyons, and linkage of currently unconnected public lands. Many of the properties along this part of the trail are threatened with development.

In addition, there are other valuable properties that NPS could acquire in FY 89 if even more funds were available. Such properties include the 373 acre-connection between publicly-owned Solstice Canyon and Malibu Creek State Park, which would cost an estimated $2.5 million, as well as a 145-acre parcel expanding the activity site at Rancho Sierra Vista, which would cost an estimated $2 million.

Senator REID. Congressman, I being from a sister State am very interested in your proposal. It's difficult to comprehend the number of people that live in the immediate area around the Santa Monica Mountains, and I think one of the miracles, as far as I am concerned, is there is that much land that is available still for purchase.

I think that we would be very shortsighted if we don't do something to save that property and put it into the public sector.

So you have been very persistent for which I think the State of California and certainly the Nation in years to come should be grateful for your continued interest in this.

Mr. BEILENSON. Thank you, Mr. Chairman.

Senator REID. Senator McClure, do you have anything for the Congressman?

Senator MCCLURE. Just a couple of things because you have pointed to something I have mentioned in several of the sessions that we have had about this land acquisition and I am still a little bit concerned. I am not certain that I understand what you say about the action to be taken by Los Angeles County.

You've said that they are expected to approve a resolution that supports it I gather.

Mr. BEILENSON. Yes, Senator.

Senator MCCLURE. But in spite of the fact that they support it, they refuse to enact any zoning. Now you also point out there are fire, floods, and mud slides out there, and it would help us a great deal if the county would just zone the property accordingly. It would tremendously affect the amount of money that we have to appropriate to buy land that is land for development in a commercial sense, not commercial property.

We had an authorization ceiling of $125 million, and we have already spent $80 million of that because land prices are higher than they would be if Los Angeles County cooperated in the way that some of us believe they should.

Mr. BEILENSON. I can't argue with that, Senator. As you know, we have discussed this on certain occasions when I have had the pleasure of coming before your committee. That is quite true that other local entities have been of more help than has the county of Los Angeles.

Part of the problem, of course, with respect to the rising costs of land acquisitions, and we have known this from the beginning, and the authorization which originally was $155 million, including $30 million for State funding grants, that part has lapsed as expired. We knew from the beginning that the land was accelerating in value and we knew it was expensive to begin with, and the authorization was suggested specifically for the first 5 years.

We ran into problems early on in this administration, not only this but every other park of course, since you all weren't able to help us nor was our side able to help us appropriate that kind of money.

If we had appropriated the $125 million, or more specifically the $155 million the first 5 years, that part would have been over and done with. We would have had 2½ times probably as much acreage as we have now and it would have cost less than it's going to cost us because we spread it out over such a long period of time. It has been this annual appropriation of 1, 5, 6, 8 10, once zero millions of dollars that has allowed the cost to continue rising.

We have known this from the beginning and we have pleaded with you all from the beginning and you all have done as well as you possibly could have. There just hasn't been enough money nationwide for parkland acquisition. But we knew the situation we were getting into and we knew that the faster we acted, the better off we would all be, and we are here still struggling.

Senator McClure. Well, I guess I mention it because certainly you know what questions we have asked. You have been diligent, and I'm not questioning what you're doing, but I just can't quite understand if the county of Los Angeles really wants to help why they haven't helped. In my view they have not helped, and I wish they had.

Mr. Beilenson. I don't disagree with you, Senator. We have said before, and I have been very frank in saying this, that if they had a little foresight even 20 or 25 years ago, and I suppose this is true in other areas of the country where the NRA's now have been established and urban parks have been established, the Federal Government with its larger resources, despite our deficit, wouldn't be asked to be coming in at this point.

Senator McClure. I quite agree, Mr. Beilenson.

Mr. Beilenson. We have had very good support from other local entities. I mean they are for it at the county, but they are not being terribly helpful.

Senator McClure. I guess the reason I mention it is not because I think you are unaware of it, but because I hope somehow they will hear that somebody on this committee is still aware of the fact that the county of Los Angeles has done what at least this member thinks they might have done to be of help to the Federal Government.

Mr. Beilenson. They are hearing it from a lot of people, and I appreciate that, sir. They have been hearing it from me and they have been hearing it from Mayor Bradley and from a number of other local people who have been fighting actively to protect this park.

Senator McClure. I will ask you to do what may be impossible, but nevertheless ask you to do it in spite of that, and that is, as I understand it, the 302B allocations have not been made on the House side yet. All the tentative figures have been arrived at.

As is typically the case, the House Appropriations Committee has allocated this subcommittee less money, $200 million less out of a budget of $9 billion. But worse than that, the issue of the Clean Coal Program has not been resolved on the House side, and that is $525 million. If the allocation is $200 million lower than ours, my friend, we are not going to have money for any land acquisitions if that figure stands.

Mr. Beilenson. I quite understand you, Senator, and I voted against the budget resolution for that purpose, for that reason. There are a number of areas, and this is one of them, where we simply haven't allocated adequate amounts of money.

Senator McClure. I understand that, but again——

Mr. Beilenson. I accept your comments. I agree with them.

Senator McClure [continuing]. I hope something can be done because this committee has been constrained and our budget has gone down consistently year after year in real dollars and we are getting squeezed to the point we can't do what we would like to do.

Mr. Beilenson. I totally understand.

Senator McClure. Thank you very much.

Mr. Beilenson. Thank you, sir.

Senator Reid. I appreciate your being here.

Mr. Beilenson. Thank you, Senator, very much. I appreciate it.

Senator Reid. The next witness will be the Senator from the State of Missouri, Senator Bond.

## STATEMENT OF HON. CHRISTOPHER S. BOND U.S. SENATOR FROM MISSOURI

Senator Bond. Thank you very much, Mr. Chairman and Senator McClure.

I appreciate the opportunity to appear before this subcommittee. I commend you on your diligent schedule of hearings to accommodate all of the Government agencies and the Members who appear before you to make it easier for all of us.

I would ask that I be permitted to submit for the record a copy of my full statement and also ask that a letter I believe dated May 10 from my senior colleague, Jack Danforth on this subject also be included.

Senator Reid. That will be the order.

Senator Bond. It's a pleasure to talk with you about a facility that I think makes a great deal of sense not only for our State but for the U.S. Forest Service. I understand that this particular project would be their No. 1 priority if they were able to request any construction dollars.

The particular program that I seek your approval of is the joint research facility at the University of Missouri at Columbia, MO, which would provide space for sophisticated research in forestry, wildlife, and other disciplines related to renewable natural resources.

We are requesting Federal support, but the university, State, and private sources will provide approximately three-quarters of the project's estimated cost.

Now, Mr. Chairman, it has been written that there are less than 3 acres of commercial forest land available to supply every American with a cradle, coffin, and all the forest products needed in between.

In Missouri about 1 out of every 3 of our acres are forested and we produce about $60 million annually of forest products. The north central experiment station and the central hardwood project is very important in Missouri, but it's also important for Oklahoma, Illinois, Arkansas, Tennessee, West Virginia, Kansas, Indiana, Nebraska, Ohio, Pennsylvania, southeast Wisconsin, southeast Minnesota, and lower Michigan.

Throughout this region nonindustrial private forests account for about three-fourths of the commercial forest land. Because the majority of this land has not been subject to experienced management, it's estimated that these forest lands are capable of producing about double their present rate.

This proposed facility would enable the focus of research on biology, ecology and the management of natural forest stands. The facilities would accommodate a multidisciplinary team of 8 to 10 Forest Service scientists.

In addition to improving the research capabilities of the Forest Service, the building would provide an educational environment for the university's school of forestry, fisheries, and wildlife.

While the university's access to data, experience, and expertise would be enhanced, the Forest Service would be able to participate in a larger number of studies and to analyze projects in much greater detail.

Finally, the ability to share equipment and facilities would improve the cost effectiveness of this project.

Mr. Chairman, the proposed Forestry Science Laboratory has been in the works for many years now. In fact, the schematic designs for the building have been completed and they were recently approved by the board of curators of the university. It takes quite a long time to get to this point and we are now ready to move forward on construction.

The project cost of the entire facility is $13.8 million. The University of Missouri has already contributed $3.3 million. A fundraising campaign is underway in Missouri to generate an additional $1.5 million, and the State of Missouri has indicated that it will seek to appropriate funds to cover the balance following the determination of Federal funding.

The $3.5 million which we are requesting from the Federal budget this year is approximately 25 percent of the proposed cost, and that gives the project, as I indicated, a 3 to 1 non-Federal to Federal funding ratio.

### PREPARED STATEMENT

I appreciate the opportunity to testify before you, I ask your careful consideration and I fully understand the budgetary constraints which we have already discussed this morning.

[The statement follows:]

### STATEMENT OF SENATOR CHRISTOPHER S. BOND

Mr. Chairman, it is a pleasure to appear before this subcommittee and I very much appreciate the opportunity to discuss an issue of importance to my home State of Missouri. Before beginning my testimony, I commend this subcommittee on its diligent schedule of hearings to cover all the relevant Government agencies and also to accommodate the requests of both members and the public.

Over the past few years, the University of Missouri and the U.S. Forest Service have worked to secure funding for a joint research facility at the university's campus in Columbia. The facility would provide space for sophisticated research in forestry, wildlife, and other disciplines related to renewable natural resources. Although we are requesting some Federal support, university, State, and private funds will comprise approximately three-fourths of the project's estimated cost.

Mr. Chairman, forestry and forest products will continue to play an increasing role in the economies of many States throughout the country. It has been written that nationwide, there are less than 3 acres of commercial land to supply every American with a cradle, coffin, and all the forest products necessary in between.

In Missouri, where 1 out of every 3 acres is forested, some 60 million dollars' worth of forest products are produced annually. As a member of the north central forest experiment station and a participant in the central hardwood project, Missouri, has been very involved in efforts to expand research and provide up-to-date information for private foresters. Many other States have become involved in the central hardwood project, including Oklahoma, Illinois, Arkansas, Tennessee, West Virginia, Kansas, Indiana, Nebraska, Ohio, Pennsylvania, southeast Wisconsin, southeast Minnesota, and lower Michigan.

Throughout this region, nonindustrial private forest ownership accounts for over three-fourths of the commercial forest land. Because the majority of this land has not been subject to experienced management, it is estimated that these forest lands are capable of producing at double their present rate.

These proposed facilities at the University of Missouri would bolster the existing Forest Service research program in central hardwoods. Expanded research would focus on the biology, ecology, and management of natural forest stands. The facilities will accommodate a multidisciplinary team of 8 to 10 Forest Service scientists.

In addition to improving the research capabilities of the Forest Service, the proposed building will provide an enhanced educational environment for the university's school of forestry, fisheries, and wildlife. Both the Forest Service and the university will derive benefits from the integration of ideas, knowledge, and resources. While the university's access to data, experience, and expertise are enhanced, the Forest Service will be able to participate in a larger number of studies and analyze projects in greater detail. Finally, the ability to share equipment and facilities will improve the cost effectiveness of both entities.

Mr. Chairman, the proposed Forestry Science Laboratory has been in the works for many years now. In fact, the schematic designs for the building have been completed and were recently approved by the board of curators of the university. As you know, it takes quite a while to get to this point and we are now ready to move forward to the construction phase.

The projected cost of the structure is $13.8 million. The University of Missouri has already contributed $3.3 million to the project and a fund raising campaign is expected to generate an additional $1.5 million. The State of Missouri has indicated it will seek to appropriate funds to cover the balance following the determination of Federal funding. The $3.5 million which we are requesting is approximately 25 percent of the proposed cost, or a 3 to 1 ratio of non-Federal to Federal funds.

Mr. Chairman, I ask that a letter in support of the project from the senior Senator from Missouri, Senator Danforth, be made a part of the record.

Again, I appreciate the opportunity to testify this morning and would hope this request is given careful consideration. I truly believe the merits of the proposed facility warrant participation by the Federal Government. I welcome the opportunity to answer any questions you may have regarding this project.

Senator REID. Senator Bond, I did not realize that about one-third of Missouri is covered by forests. That's interesting.

Senator BOND. Yes.

Senator REID. I don't think most people in the country appreciate that.

Senator BOND. The southern part of our State is heavily forested. You can raise trees, hell, and kids on much of the acreage there, and we do have some very fertile cropland in the northern part of the State. But much of southern Missouri is an excellent forestry resource.

Senator REID. I have nothing further.

Senator McClure.

Senator McCLURE. Just let the record note that I have had your letter in my file for some time. I read it carefully and I understand what your request is.

Senator BOND. We thank you very much for your interest and appreciate the time to be with you.

Senator REID. We appreciate your patience in waiting.

Senator Cranston.

## STATEMENT OF HON. ALAN CRANSTON, U.S. SENATOR FROM CALIFORNIA

Senator CRANSTON. Thank you very much, Mr. Chairman.

I appreciate the opportunity to speak to you and to join Congressman Beilenson in beseeching you to try to help us on the Santa Monica Mountains.

I listened to the questions and the conversation with Tony. I will not read my prepared statement, though I would like to ask that it go in the record.

Senator REID. We will make this part of the record.

Senator CRANSTON. Thank you very much.

First, on the problems of financing it as far as the California end of it is concerned, one of our problems, Senator McClure is proposition 13 which you are I'm sure well aware of. It's cut into the ability of local government——

Senator McCLURE. Would you yield at that point. I really wasn't expecting the local governments to provide funding as much as I was the support that could come from the county of Los Angeles in zoning.

If they recognize the potential for flood and fire and mud slides, if they adopted restrictive zoning that didn't make this prime development property, it affects the price that we have to pay and would make our limited resources go a lot further.

Senator CRANSTON. Yes.

Senator REID. Senator Cranston, I think an example is what has happened around around Lake Tahoe.

Senator CRANSTON. Yes, exactly.

Senator REID. There is just nothing going on there, and because of that the land is a lot cheaper.

Senator CRANSTON. I do recognize that point in addition to the monetary problem. There is a very narrow split on the board of supervisors. I think it's a 3 to 2 situation at the present time over how far they are willing to do in that respect and in respect to money.

I think the pressures are building in favor of the Santa Monica Mountain Park and we will do whatever we can to make it the large-scale recreation area that we hope for and I think we will be successful.

One other evidence of interest is proposition 70 on the ballot for this June which is a couple of weeks away now for purchasing land for parks and recreation areas and so forth. $30 million of that is earmarked for the Santa Monicas Mountains. I think there is an excellent chance that will pass and we will, therefore, be able to make some progress.

The unique thing about the Santa Monica Mountains, and I won't go into the nature of it, I think you have been told enough about that, but I just want to stress that it is absolutely unique in one particular respect in that it is a perspective area where people can get away to nature. It's within 1-hour's drive for 11 million people and that is I think absolutely unique. There is probably nothing else like that in the whole country, and I think it's very important to try to preserve as much as of as we can.

The park now comprises 12,800 acres. That is just over one-third of the 36,000 acres in the plan for Federal acquisition.

This is really a critical year. If we are able to move forward now I think we can manage to protect some parts of it. If we don't move forward now, it's going to be very, very difficult, although that $30 million we hope to get from the people of the State will certainly help.

Frankly, I have been disappointed in what we have been able to get authorized by the subcommittee and the full committee. I understand and I heard what you were saying about the limits and the money available.

I totally understand you have to fit this into a larger scheme of affairs, but I just urge you to take into account the uniqueness of this and the needs if the money is made available to you one way or another, and Tony and I and others will be fighting to get that money made available to you.

### PREPARED STATEMENT

I'll rest the case on that point.

[The statement follows:]

## STATEMENT OF SENATOR ALAN CRANSTON

Mr. Chairman, I'm here today to ask for your help in securing funding in FY 1989 for the Santa Monica Mountains National Recreation Area in California.

The Santa Monica Mountains are a very special place. This Mediterranean-type ecoystem is found nowhere else in the National Park System. Moreover, the park contains tremendously scenic coastal and mountain lands, undeveloped watersheds with rich vegetation and abundant wildlife populations. There are nearly 900 plant species, over 350 bird species, and 26 different mammals, including mountain lions and bobcats. The mountains also are heavily used parklands, providing vast recreational opportunities, not only for the 11 million people who live within one hour's drive of the park, but for visitors from throughout the state, across the nation, and around the world.

This year -- 1988 -- marks the 10th anniversary of the Santa Monica Mountains National Recreation Area. Since the park was created, the National Park Service has acquired some key parcels, and established some excellent visitor activity programs. But the progress has been much slower than Congress intended in 1978. The federal park now comprises 12,800 acres, just over one-third of the 36,000 acres identified in the land protection plan for federal acquisition.

Because of intense pressures of development in the Santa Monica Mountains, it's critical that the federal government move ahead expeditiously with land acquisition. Each year of delay increases the chance that some of the proposed parklands will be lost to incompatible development, or if they are not developed, will become more expensive due to rising land values in the mountains.

On this 10th anniversary of the park, I would like to ask this Subcommittee to make a commitment to try to appropriate sufficient funds to complete the Santa Monica Mountains National Recreation Area land acquisiton program within the next three to five years. With $75 million of the original $155 million authorization unspent, this would mean an appropriation of about $15 to $25 million in each of the next three to five years until the total is reached.

For FY 1989 I am seeking an appropriation at this level that would enable the National Park Service to purchase property in three priority areas of the Santa Monica Mountains. These areas are:

1) Medea Valley/Whizen property (1 tract, 314 acres, estimated cost $10 million),

2) Lower Zuma Canyon (1 tract, 786 acres, $6 million to reimburse the Santa Monica Mountains Conservancy), and

3) Backbone Trail (103 tracts, 2,033 acres, estimated cost $11.8 million).

The Medea Valley is one of the National Park Service's most important activity areas since it is one of the relatively few flat spots in the park. The National Park Service has already purchased Paramount Ranch in this area. The acquisition of the Whizen property, immediately adjacent to Paramount Ranch, would add 214 acres in Medea Valley. Unfortunately, development of the property is imminent. The owner has already obtained permits to construct 160 homes and plans to channel Medea Creek. This development will destroy the existing scenic vistas from the park and likely cause flooding of the Paramount Ranch property. Thus, National Park Service purchase of the Whizen property in FY 1989 is essential not only to save a prime recreation site, but also to preserve the integrity of Paramount Ranch.

Zuma Canyon is probably the deepest, narrowest, most rugged and most unspoiled of the sixteen major coastal drainages in the Santa Monica Mountains. It is one of the most ecologically important areas in the entire park. Because of its valuable natural resources, the Park Service has made acquisition of Zuma Canyon, and adjoining Trancas Canyon, one of its highest priorities. The acquisition of Zuma Canyon is also important to connect existing public lands in the Santa Monica Mountains.

In 1985 the National Park Service and the Santa Monica Mountains Conservancy, an agency of the State of California, together purchased a 1,500 acre property in Lower Zuma Canyon. The Park Service provided $2 million and the Conservancy put up $6 million. However, under the agreement, the Park Service must reimburse the Conservancy for its share by the end of 1988. Otherwise 786 acres of the property must be sold. Thus, it's imperative that the Park Service have the necessary funds in FY 1989 to prevent the loss of this extremely important parkland.

The Backbone Trail when completed will be a 55 mile hiking and horseback riding trail connecting the western edge of the metropolitan Los Angeles area along the crest of the Santa Monica Mountains to the beach at Point Mugu State Park. It will link all the existing state and local parks and National Park Service lands, provide access to urban areas, and cross the signficant scenic areas. As the main trunk of the mountains' trail system, public ownership of the trail corridor is critical to serve a large number of recreationists. The eastern end of the trail from Will Rogers State Park through Topanga State Park to Malibu Creek State Park is already protected. An appropriation of $11.8 million will enable the National Park Service to purchase the remaining unprotected 11 miles and complete the Backbone Trail.

Mr. Chairman, as I've outlined, this is a critical year for the Santa Monica Mountains National Recreation Area. We desperately need funding to acquire key parcels that are threatened, to protect the investment the federal government has already made, and to enhance visitor use of the park. As you know, I've asked the Senate Appropriations Committee for funding for the Santa Monica Mountains every year. However, quite frankly the park has not received the level of funding that I believe it deserves. And then last year the Santa Monica Mountains received such a low, disappointing appropriation and as a result the National Park Service has not been able to address very real needs. I recognize the budget contraints the Subcommittee is facing. Nonetheless, I urge you to appropriate monies for the Santa Monica Mountains this year and help protect the national significant resources and recreational opportunities this park provides.

Thank you for the opportunity to testify and for your consideration of this request.

Senator REID. Senator Cranston, I'm sure you have seen the Post today, but there is a front-page story on the effects of proposition 13. It's very interesting. It's an in-depth story, and it did indicate that one of theories is that proposition 13 has all but destroyed local government, that schools are not being built and things of that nature. But the other theory is, of course, it's a great thing and it has saved a lot of money.

I would just comment briefly, you know, it's an hour's drive for 11 million people if you can get down the freeways. They are usually packed and crowded.

I mentioned and you may have heard with Congressman Beilenson that this is really a miracle that there is this piece of property still left in that area.

Senator CRANSTON. It is.

Senator REID. And looking through your statement I see that there is one piece of property there called Whizen, or I don't know how to pronounce it, but he already has permits for 160 homes and he has the authority to divert a creek that would take away much of the natural aspect of that area. I think this is a perfect example of why something should be done.

Every time I go to New York City, and, of course, you almost have to go by Central Park, it's just unbelievable that someone would have had the foresight to set that area aside in the middle of that metropolitan area.

The same is true with respect to the Los Angeles area. I think it would be a shame if we don't do more to increase the size of that; 12,000 acres sounds like a lot, but the State of Nevada, which is smaller than California, is 72 million acres. I mean 12,000 acres in that vast State is a speck on the map.

Senator CRANSTON. Yes.

Senator REID. And we should try to do something to make this speck just a little bit larger.

Senator CRANSTON. I appreciate your recognition of what the needs are and the importance of it.

Let me add one more point. Eleven million people are the people that are close now. It's projected our population is going to grow from what is now around 28 million to around 40 million by the year 2000 or 2005 or something like that, and imagine the pressure that we are going to have at that point with people coming from all over the country and all over the world to settle down in California.

The pressures are just going to be immense, and if the park is important now as a recreation area, imagine how important it will be when that population surrounds it.

Senator REID. Senator McClure.

Senator MCCLURE. I think you were present when I made my comments to Congressman Beilenson. Tony has been certainly forthright and very helpful to us in all of the discussions we have had.

I can only repeat again that unless the Committee on Appropriations in the House is able to solve that allocation problem, we are not going to have any money for anything.

I realize that they would resent the notion that you could influence what they do, but—[laughter]—but I would hope that you would at least let them know what your concerns are about the Santa Monica Mountains.

Senator CRANSTON. I will certainly try, and Tony can certainly achieve it. [Laughter.]

Senator REID. Senator, thank you very much.

Senator CRANSTON. Thank you.

## PREPARED STATEMENTS

Senator REID. Senator Inouye has asked that I make his statement part of the record, and that will be done.

Senator Wilson also was to appear, but was unable to do so, and he has a statement that we will make part of the record, as will statements from Senator Pressler and Congressman Bart Gordon.

[The statements follow:]

# STATEMENT OF SENATOR DANIEL K. INOUYE

The Exclusive Economic Zone (EEZ) surrounding the Hawaiian Islands covers approximately 634,000 square nautical miles or over 100 times the land area of the State of Hawaii and constitutes one-fifth of the United States EEZ. The Hawaiian EEZ contains a wealth of resources for which only limited resource utilization exists today. Given the vastness and richness of its EEZ, the State of Hawaii is in a unique position to take the lead in discussions concerning the development, protection and conservation of the resources within the EEZ.

Full economic and social benefits of Pacific EEZ resources will be realized only if an orderly and stable regulatory framework is put in place; one in which all the affected parties are effectively represented in the decision making process. Such a comprehensive framework is necessary to maintain a proper balance between development, protection and conservation of the EEZ.

Although the Hawaii Congressional delegation generally supports the eventual development of the EEZ, it is clear that a coordinated research program is necessary to improve our understanding of the marine and seabed resources as well as what the effect of further development of these resources, such as the seabed hard mineral resources, will be on the marine and coastal environment.

To some extent all the major categories of ocean resources which have been identified; namely, hydrocarbons, minerals, living resources, waste management, recreation and transportation, are being utilized. Yet the States and our nation could benefit by working together toward a broader and more effective utilization to enhance our national productivity. Given what little we know about the quantity and quality of our EEZ resources, I am concerned about the Department of Interior's rushed efforts to promulgate regulations, under questionable authority, concerning prospecting, leasing and exploitation of ocean hard mineral resources.

Additionally, the Department of Interior has admitted that they do not have the authority under OCSLA to issue mineral mining leases off Johnston Island, however they have spent in the past, and continue to spend, exorbitant amounts of money in preparing an environmental impact statement (EIS) for that area.

The State of Hawaii and all other coastal States have an obligation to future generations regarding the beneficial and equitable ownership and use of these ocean resources. Problems associated with the development of EEZ resources are not unique to Hawaii. The difficulties associated with assuring adequate environmental protection of our oceans, developing new ocean resources without jeopardizing established ocean industries, assuring the safety and well being of all those using the ocean; these and other problems affect not only Hawaii but all coastal states. As the policymakers, we must be diligent in our pursuit toward an effective and efficient legal regime to wisely develop, protect and conserve our valuable EEZ ocean resources.

## STATEMENT OF SENATOR PETE WILSON

Mr. Chairman, thank you for the opportunity to present my views on California's needs for Interior Appropriations for Fiscal Year 1989.

At the outset, let me express my appreciation once again to the Committee for the good work that has been done in past years in providing land acquisition monies and other appropriations for California projects. With a population nearing 28 million, California's needs are many. I am happy to report that funds that have been made available to date to meet these needs have been well spent. I hope that we can continue our constructive working relationship.

My first order of business is a request not to fund a $600,000 study recommended in the President's budget. This money has been requested to study the feasibility of dismantling the Hetch Hetchy Reservoir in the Yosemite National Park. This particular reservoir, as you may know, is the major source of water for over two million people in the San Francisco Bay Area.

This study money request comes on the heels of Secretary Hodel's proposal to reclaim the Hetch Hetchy Valley in Yosemite. Even though the thought of restoring this once pristine valley to its original splendor has some aesthetic appeal, the practical consequences of such an action are mind-boggling.

The cost to the federal government of such a project is conservatively estimated at $3 billion. The Energy Department has calculated that it would cost in excess of $100 million a year to replace the electricity that would be lost from the Hetch Hetchy power system. And perhaps most importantly, the water supply loss to San Francisco and other Bay Area communities is unacceptable.

Mr. Chairman, I am unequivocally opposed to the Secretary's proposal. Given the severe fiscal constraints that confront us, I am certain that there must be better ways to spend $600,000 than to study the idea of dismantling the Hetch Hetchy Reservoir.

In fact, Mr. Chairman, I am sure that it comes as no surprise that I have a number of ideas about how to spend scarce federal dollars in California.

Financing land acquisitions in the Santa Monica Mountains National Recreation Area continues to be a high priority. I was disappointed that only $1 million was made available for this project in the current fiscal year. I sincerely hope that the Committee will be able to rectify this situation by recommending the appropriation of a significantly larger amount for next year. I am aware that nearly $30 million can profitably be spent for land acquisition in the Santa Monica Mountains.

I am proud to be associated with yet another potentially successful Nature Conservancy project that calls for the establishment of the Carrizo Plains reserve. This Committee began this project with a $4 million BLM appropriation for the current fiscal year. An additional $5 million is needed for Fiscal Year 1989 to continue the federal government's financial share. Combining these federal dollars with state and private industry money will allow for the creation of a large reserve in the southern San Joaquin Valley that will serve to protect a number of endangered plant and animal species.

Hope Valley acquisitions in the Toiyabe National Forest should also be highlighted by this Committee. The land acquisition program that was begun this year with $1.7 million has proven to be immensely popular and should be continued next year with an appropriation of $4 million.

As the Committee may know, things are heating up in the California Desert -- both literally and figuratively. Senator Cranston and I are embarked upon a process of determining what parts of the desert we think should be preserved in perpetuity as either wilderness or parkland. Given the vast amount of land at stake in these discussions, it is likely that this deliberative process will take a while to conclude.

Meanwhile, land acquisition priorities in the desert remain. Specifically, I am supporting BLM appropriations of $1 million and $1.3 million respectively for habitat acquisition at the Desert Tortoise Natural Area and the Chuckwalla Bench Area of Critical Environmental Concern. Knowing that sensitive desert habitat is being preserved with these kind of land acquisition programs will make the task of reconciling conflicting demands throughout the desert that much easier for Senator Cranston, myself and other interested Members of Congress.

Turning to wildlife preservation needs, there are two wildlife refuges in California which merit particular attention. First, the Sacramento River National Wildlife Refuge deserves a $4 million appropriation to help protect what little remains of the riparian habitat along the Sacramento River. This money would allow for the acquisition of habitat that is essential in supporting many different wildlife populations, including migratory waterfowl and several endangered, threatened, and candidate species.

The San Francisco Bay National Wildlife Refuge also deserves at least $3.5 million for land acquisition. Bay Area wildlife habitat has slowly been destroyed over the last century as this sprawling metropolitan area has continued to grow. Land acquisition of the sort that is called for at this refuge is the only way to ensure that this sensitive habitat can be protected for tomorrow's wildlife and tomorrow's visitors. The Committee may be interested to know that more than a million people visit this refuge each year. Adding critical habitat to this refuge now is necessary before it is lost forever.

The final land acquisition item I would like to bring to the Committee's attention is the opportunity to complete our land acquisition program at the Channel Islands National Park. The National Park Service is close to an agreement with the property owner on a final purchase price for the remaining land parcel. Although I am not prepared at this time to say how much money will be required to complete this land acquisition, I will be in touch with the Committee with this information prior to your markup session.

Before I leave, I would like to register my support for the Administration's timber sale program and a commensurate roads budget. A nationwide sale program of at least 11.2 billion board feet of timber will allow a sale program of up to 1.9 billion board feet in California.

This proposed program is a crucial part of helping California recover from the devastating fires of 1987. Part of this sale program will allow for the salvage sale of approximately 300 to 400 million board feet of burnt timber that should be left over from the salvage sale program already underway this year. If this burnt timber isn't salvaged this

**year or next, it will be lost forever. We simply can't afford to delay appropriations for this time sensitive salvage sale project.**

**Again, Mr. Chairman, I appreciate your willingness to hear my views on these matters. As the Committee prepares for markup, I will remain in touch in order to update you on any new developments. As always, I look forward to working with you to move this bill through Congress in a timely fashion.**

## STATEMENT OF SENATOR LARRY PRESSLER, U.S. SENATOR FROM SOUTH DAKOTA

MR. PRESSLER: Mr. Chairman, I commend you for scheduling this hearing to allow Congressional witnesses to testify on issues of joint concern to us.

I am concerned with the failure of the U.S. Fish and Wildlife Service to provide full entitlements of payments-in-lieu-of-taxes to local governments as part of the Refuge Revenue Sharing Act. Under this act the U.S. Fish and Wildlife Service makes payments to counties in which U.S. Fish and Wildlife Service fee title lands are located based on their fair market value. This is to compensate for lost tax revenues due to removal of those lands from the tax base.

The net receipts from the sale of refuge products (such as oil and gas, timber, livestock pasture, public concessions, etc.) form the base of the Refuge Revenue Sharing Fund. The Act authorizes direct appropriations to cover the difference between entitlements and net revenues. Since 1980 local governments have not received full entitlements because revenues and appropriations have remained steady while the value and amount of fee title lands have increased significantly. Once again, in fiscal year 1989 the Administration's budget request for additional appropriations falls short of full entitlement.

The ramifications of these continued shortfalls are becoming more serious for both the affected jurisdictions and the U.S. Fish and Wildlife Service.

For some sparsely populated states, like my own South Dakota, this lost revenue is especially significant. In these economically distressed rural counties, the amount and value of refuge lands are substantial. Other states, such as Texas and Louisiana, which are suffering from the petroleum industry recession, also are experiencing serious declines in local budgets. Some counties are experiencing a squeeze on their school and other budgets in part as a result of the shortfall in payments-in-lieu-of-taxes.

The shortfall puts the Fish and Wildlife Service and its local refuge employees in a difficult position in their relationships with local citizens. The refuges require county services, including law enforcement assistance, fire protection assistance, education for the children of refuge employees, various personal services used by refuge employees, and increased levels of county expenditures to accommodate refuge visitors. If a refuge is not contributing its fair share to the tax base as a landholder, local resentment of the federal government, the Fish and Wildlife Service and its employees may arise.

This situation may impede progress in achieving U.S. Fish and Wildlife Service objectives. Local jurisdictions have considerable influence on future fee title land acquisition. Their approval is required in some states before land can be acquired in their jurisdictions. Some counties are so unhappy about the shortfalls they are opposing all new acquisition proposals until full entitlements are paid. The North American Waterfowl Management Plan, a major new thrust of the Interior Department, will be thwarted in some states because of county opposition to additional land acquisition for waterfowl habitat without full payments-in-lieu-of-taxes.

It seems the Refuge Revenue Sharing Fund has been penalized for not bringing in revenues at a level comparable to the other federal land managing agencies which receive direct appropriations under the Payment-In-Lieu-Of-Taxes Act. These agencies, whose missions encourage the sale or utilization of natural resources on their lands, have received direct appropriations bringing their payments close to 100 percent entitlement. It is not fair to hold the national wildlife refuges to the same expecta- tions as these agencies. The capacity of the refuges to produce revenues is limited by both the supply of potential products and the compatibility of revenue producing activities with the pur- poses for which the refuges were created. We cannot compromise the prime wildlife protection function of the refuges to force them to turn a profit.

Federal government should exercise a "good neighbor policy" with local jurisdictions. It is time the Federal Government lived up to its responsibilities to compensate the counties. I am requesting that appropriations be made to the Refuge Revenue Sharing Fund to bring payments to 100% entitlement in this and future fiscal years.

## STATEMENT OF HON. BART GORDON, U.S. REPRESENTATIVE FROM TENNESSEE

Mr. Chairman, I would like to thank you for allowing me the opportunity to submit testimony before the Subcommittee concerning a project which has great significance to me and my hometown of Murfreesboro, Tennessee.

Mr. Chairman, I ask that you include in your FY 1989 budget an appropriation for $600,000 in funding for the expansion of the Stones River National Park. This funding level includes approximately $440,000 for the acquisition of 53 acres of land, $35,000 for an historic structures report on Fortress Rosecrans, the largest earthen fortress in the world and $100,000 to purchase a right-of-way for the construction of a multi-purpose, recreational, walking, jogging, and biking trail connecting the Battlefield to the Fortress.

The boundary expansion, land acquisition and trail construction are fully authorized by Public Law 100-205, passed last session and signed by the President on December 23, 1987. Public Law 100-205 revised the boundary of the Stones River National Battlefield to include the lands generally depicted on the map entitled "Boundary Map, Stones River National Battlefield" numbered 327/80,001, and dated March, 1987.

Last year this Subcommittee allocated $600,000 in its FY 88 budget for this project. However, this appopriation did not survive the conference.

When I testified before this subcommittee last year I was seeking an appropriation of approximately $1 million dollars. This funding level would have covered the cost of acquiring the 53 acres, the historic structures report for the preservation of Fortress Rosecrans, the cost to rebuild the Fortress, the cost of purchasing the right of way for the recreational trail and for the construction of the recreational trail.

Realizing the budget restraints being placed on the committee this year, I have reduced my request to include only those aspects of this plan that are absolutely essential at this time. Thus, my funding request does not include the estimated cost to actually construct the recreational trail and the cost to refurbish Fortress Rosecrans. My goal at this point is to acquire the necessary property and conduct the Fortress historic structures report before this historic area suffers further irreparably damage due to development and neglect. I will seek the remaining funding for the the construction of the recreational trail and for restoring the Fortress in another fiscal year.

I cannot stress enough; time is of the essence for beginning this project. If this project is ever going to become a reality, we must at least acquire the property, now, before it is either too expensive or forever unavailable. Furthermore, we need to begin the historic structures report on Fortress Rosecrans before it decays so far as to preclude ever restoring it to its original structure.

The Nashville metropolitan area continues to be one of the fastest growing communities in the country. Murfreesboro, a suburb of Nashville, is growing at a similar pace. In fact, the most recent report put out by the Census Bureau showed my District to be the most populous in the state of Tennessee. Approximately 3,000 families move into Murfreesboro/Rutherford County annually. Population growth approaches 15 percent each year. The number of building permits for single family and apartment units have increased from 900 in 1983 to over 2,000 in 1986. This figure is expected to be around 3000 this year. Clearly the survival time of this historic area is limited if we do not act now.

In fact, in 1980 the Park Service approved a general management plan proposing the acquisition of 284 acres in an effort to address resource preservation and interpretation. However, during 1983 this proposal had to be refined to propose the inclusion of only 83 acres. 201 historic acres were lost to commercial and residential development. Since 1983 development has claimed another 30 acres, leaving only the remaining 53 historic acres we are seeking to acquire.

Murfreesboro was the site of one the the Civil War's major battles. From December 31, 1862, through January 2, 1863, the Union and Confederate armies, with the combined strength of more than 81,000, clashed in one the war's bloodiest battles. As a result of the Union's victory in the Battle of Stones River, Union forces were able to construct the largest earthen fortress in the world, Fortress Rosecrans. The Fortress is also the oldest civil war monument.

The Union Army used the Fortress as an armament and supply depot for their march south. The Fortress was designed to house more than 55,000 troops and maintain a two to three month supply of food and armaments. It is not often when we are able to preserve the actual locations of battles that greatly effected our history as a nation. Stones River is such a site and unless we act now, its historic significance will be lost forever.

Mr. Chairman, the funding of this project is important to the preservaton of historically significant sections of a Civil War battlefield and earthen fortress. The benefits will far outweigh the cost for years to come. The more than 200,000 visitors that come to Stones River annually would not only be exposed to the historic battlefield, but, additionally, visitors would be able to visit and explore one of the largest earthen forts still intact in the United States.

Thank you for your consideration and I hope you are able to include my request in the FY 1989 Interior Appropriations Budget.

### SUBCOMMITTEE RECESS

Senator Reid. As Senator Byrd stated earlier, we will hear testimony at a later time from the Secretary of Energy.

If there is no further business to bring before the subcommittee, the subcommittee will stand in recess pending the call of the Chair.

[Whereupon, at 10:15 a.m., Monday, May 23, the subcommittee will stand in recess, subject to the call of the Chair.]

# DEPARTMENT OF THE INTERIOR AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1989

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MONDAY, JUNE 6, 1988

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
*Washington, DC.*

The subcommittee met at 8:30 a.m., in room S-128, the Capitol, Hon. Robert C. Byrd (chairman) presiding.

Present: Senators Byrd and McClure.

## DEPARTMENT OF ENERGY

### OFFICE OF THE SECRETARY

### STATEMENT OF HON. JOHN S. HERRINGTON, SECRETARY OF ENERGY

ACCOMPANIED BY:
- J. ALLEN WAMPLER, ASSISTANT SECRETARY, FOSSIL ENERGY
- ELIZABETH E. SMEDLEY, CONTROLLER
- DONNA R. FITZPATRICK, ASSISTANT SECRETARY, CONSERVATION AND RENEWABLE ENERGY

### PREPARED STATEMENT

Senator BYRD. The subcommittee will come to order.

This is the time scheduled for the Department of the Interior and Related Agencies Subcommittee to receive testimony from the Secretary of Energy, Mr. John S. Herrington.

We have your prepared statement, and it will be made part of the record as if read. If you would please introduce your associates that you might wish to present and then briefly summarize your statement, it will be included in the record, and then we will turn to our questions.

[The statement follows:]

## STATEMENT OF JOHN S. HERRINGTON

The Department of Energy is a multifaceted organization with major responsibilities for enhancing the Nation's energy strength, ensuring national security, and maintaining our scientific and technological leadership. It is especially challenging to perform these missions successfully in today's climate of fiscal constraint. The FY 1989 budget for the Department of Energy accomplishes the very difficult task of meeting the Department's priority needs while conforming to the deficit reduction mandate embodied in the Gramm-Rudman-Hollings deficit reduction legislation and confirmed by the bipartisan budget agreement late last year.

Before discussing the composition of the budget itself I would like to describe briefly the Nation's current energy posture and the Department's policy and budget themes.

### CURRENT ENERGY SITUATION

The United States enjoys a much more secure energy environment than was the case years ago when first OPEC and then the Iranian revolution convulsed world energy markets and exposed serious shortcomings in our Nation's energy policies and practices.

Significant gains have been made since this Administration took office seven years ago. Energy costs are lower and a measure of stability in energy markets has emerged. We are using energy from a greater variety of sources than ever before. We have eliminated counterproductive Government controls on domestic oil markets which contributed to past shortages and gasoline lines. Our dependence on energy supplies from the troubled Persian Gulf is down, and our insurance policy against supply disruptions, the Strategic Petroleum Reserve, contains more than 545 million barrels of oil, an inventory more than 400 million barrels higher than existed when this Administration assumed office. Energy efficiency improvements and widespread acceptance of energy conservation practices allow us to use about the same amount of energy to run an economy one-third larger.

We can be justifiably proud of these accomplishments. But we cannot rest on our laurels, especially in view of increasing oil imports which account for one-fourth of our trade deficit.

### ENERGY POLICY GOALS

Clearly much has been done, but much remains to be done to consolidate the gains of the past seven years. To increase our energy security as well as our economic security we must strengthen the Nation's oil and gas industry. This is best done by decontrolling natural gas prices, opening up the Arctic National Wildlife Refuge, and other market based reforms, rather than by imposing artificial government-created incentives. We must continue progress in energy conservation and renewable energy technology whenever this is cost-effective. And we must increase the contributions of nuclear, coal, and natural gas to energy supply, by improving the economic competitiveness of nuclear power, by demonstrating the ability to burn coal cleanly, and by deregulating natural gas.

Other goals for the Department relate to our science and defense missions. Investment in basic science research is an investment in the future. The Department's commitment to the Superconducting Super Collider and to advance research and development on superconductivity are two examples of the priority given by the Administration to expanding our knowledge base, maintaining world leadership in high energy physics, and improving our economic competitiveness through support of advanced research and new technology.

The Department's defense activities are vital to national security. In addition to meeting the requirements of the Department of Defense for nuclear weapons and materials, the Department is committed to ensuring that our nuclear weapons complex is safe and environmentally responsible. I am pleased to advise that in FY 1989 and FY 1990, respectively, the Department intends to begin operating two major defense waste facilities: the Waste Isolation Pilot Plant in New Mexico and the Defense Waste Processing Facility at the Savannah River facility in South Carolina.

Meeting these important goals requires dedication on the part of the Department's employees and contractor personnel, but it also requires legislative action to bring about certain changes which are necessary if these objectives are to be accomplished. Several of these legislative proposals are budget-related and are described below. Others have no direct relationship to appropriations but are crucial nevertheless to fulfilling the Administration's energy goals. I include in this category repeal of the Windfall Profits Tax; complete natural gas decontrol; oil pipeline deregulation; reauthorization of the Price-Anderson Act; oil exploration authority in the Arctic National Wildlife Refuge; adoption, by FERC, of market-based reforms in the electricity industry; and favorable consideration of the U.S.--Canada Free Trade Agreement and the U.S.--Japan agreement for nuclear cooperation. I want to stress the importance of these reforms: repeal of the Windfall Profits Tax, for example. This tax imposes a needless paperwork burden on the industry and it discourages new investment in domestic oil production. Approval of these proposals, together with the legislation which directly supports the budget request, will go far toward establishing this nation's scientific preeminence and energy strength.

## BUDGET THEMES AND INITIATIVES

This budget achieves the Nation's and the Department's objectives by continuing to strive to direct Federal funding only to those activities that are clearly the responsibility of the Federal government; meeting critical defense requirements for nuclear weapons and materials; strengthening partnerships between national laboratories, universities, and industry; encouraging cooperative research and development ventures with industry; divestiture of certain Federal assets where the justification for Federal ownership is limited; a strong commitment to basic research; enhanced funding for worker and public health and safety and environmental protection and restoration at the Department's facilities; strong support for the Clean Coal Program; and a continued commitment to safeguards and security at the Department's facilities.

Major initiatives in FY 1989 include the first year of substantial funding for the Superconducting Super Collider, a major basic science project which will ensure world leadership for the United States in high energy physics. Another major initiative will improve our protection against possible oil supply disruptions by selling Naval Petroleum Reserves 1 and 3 and applying the proceeds to double the fill rate at the Strategic Petroleum Reserve and to establish a dedicated Defense Petroleum Inventory. The budget also supports continuation of recent progress in superconducting materials as well as the translation of those material advances to practical technologies through applied research. We believe these new high temperature superconducting materials could make significant future energy efficiency gains and have novel applications not yet clearly envisioned.

Finally, to strengthen its oversight of nuclear facilities and operations, the Department is proposing significantly higher funding for safety improvements and environmental restoration and oversight activities in response to a number of internal and external studies of the Department's reactor complex, including the recently released National Academy of Sciences/National Academy of Engineering study of the safety of the Department's production reactors.

With this introduction, let me turn now to the FY 1989 budget request.

## FY 1989 BUDGET SUMMARY

The FY 1989 budget request for the Department of Energy is $16.1 billion, an increase of about $2 billion over FY 1988. Although the request is 13.9 percent above the FY 1988 level, the level of actual program activity would increase only 11.5 percent because of substantially higher levels of prior year funds available in FY 1988. The increases are to be found primarily in the Strategic Petroleum Reserve, Basic Science Research programs, Uranium

Enrichment, the Nuclear Waste program, Defense activities, and the Clean Coal Technology program.

At this point I would like to discuss the budgets for selected program areas.

## BASIC SCIENCE RESEARCH

A long-standing goal of this Administration has been to maintain the nation's scientific and technological preeminence. Over the past several years the Department's basic science budgets have been among its fastest growing accounts. The Department proposes to continue this growth in FY 1989.

This increase is due principally to the inclusion of the first year of major construction funding for the Superconducting Super Collider (SSC). It should be noted that the SSC is not being funded at the expense of existing research projects, but is in addition to the amounts considered necessary for these other worthy activities.

For FY 1989 the Department is proposing $363 million for construction and research and development of the SSC. The enhanced funding for research and development in the SSC program is required to finalize design of the superconducting dipole magnets and various other related technical systems and to proceed with the detector development program.

A major effort in FY 1988 involves site selection activities. Final site selection is scheduled for FY 1989, and initial construction activities for the SSC will begin that year. The requested funding will cover such construction activities as the following: detailed design of technical systems and conventional facilities; long-lead items for power stations and utilities; and the injector and collider components' long-lead items. A substantial portion of the total project cost will be solicited from non-federal sources such as foreign investors, based on the anticipated benefit of the project to the international scientific community. With continued funding as planned, the project can be completed in 1996.

I should note that initial contacts were made in January with OECD countries about their interest in and prospective contribution to the SSC. The response to date has been very positive and foreign scientists are already contributing to the design phase. However, the clear position of all these countries was that a demonstrable U.S. commitment to the project, reflected by bipartisan Congressional support for our FY 1989 budget request, was a prerequisite to the substantial contributions on their part that we anticipate in later fiscal years.

Another major project in this budget, which shows promise for making significant contributions to the Nation's scientific and technical stature, is the initiation of construction on the 6-7 GeV Synchrotron Light Source at Argonne National Laboratory. This project will aid the U.S. in maintaining its competitive position in areas such as semiconductors, supercomputers, biology, chemistry and materials. Synchrotron radiation emitted by circulating electron or positron beams has emerged as a very powerful and versatile source of vacuum ultraviolet light and x-rays, and is very effective for probing the structure of matter and for studying various physical processes.

Beginning in FY 1989 the SSC, the 6-7 GeV Synchrotron, and all other major user facilities presently supported in the High Energy Physics, Nuclear Physics, and Basic Energy Sciences program budgets will be budgeted for in a new account entitled Basic Research User Facilities. This new account will ensure that the SSC and other basic research user facilities will continue to receive the appropriate emphasis in the funding process. With enhanced visibility we can be better assured that the facilities receive the resources required to keep them operating at effective and efficient levels.

## MAGNETIC FUSION

The budget for Magnetic Fusion increases from $335 million to $360 million in FY 1989.

The fusion program supported by the FY 1989 budget builds on past progress in the domestic fusion program and supports the world fusion program. The FY 1989 program provides research and development and construction funding for the Compact Ignition Tokamak, a device designed to prove that a plasma can be ignited and burn without continuous external heating. The program for FY 1989 has been restructured so that it will not demand real increases in the future, even with the programmatic addition of the CIT. Another activity to be supported in this area is the design and research and development for an International Thermonuclear Experimental Reactor (ITER), an international prototype fusion reactor.

## BIOLOGICAL AND ENVIRONMENTAL RESEARCH

Three recent initiatives in the Biological and Environmental Research program are accorded increased funding in FY 1989. The three are the human genome project, radon research, and research into the effects of increased atmospheric carbon dioxide.

## ENVIRONMENT, SAFETY AND HEALTH

The proposed budget for the programs consolidated under the direction of the Assistant Secretary for Environment, Safety and Health increases substantially from $68 million to $110 million. The Environmental Survey, a comprehensive identification of environmental problems at DOE sites, will be completed in FY 1989.

During FY 1989, the program will move to implement vigorously throughout the Department the recommendations of the National Academy of Sciences/National Academy of Engineering review of nuclear safety at the Department's defense facilities. Major initiatives will be pursued to improve further the level of safety assurance afforded at nuclear and non-nuclear facilities, including both internal and external oversight measures. External oversight has been improved with the establishment of the independent expert Advisory Committee on Nuclear Facility Safety. An intensified, independent, internal safety appraisal and safety analysis program will also be pursued. Technical information exchange with the commercial sector is being enhanced through an agreement with the Institute for Nuclear Power Operations.

## CLEAN COAL TECHNOLOGY

Last year, the President announced the Innovative Control Technology Initiative, a 5-year, $5 billion program, with $2.5 billion in Federal funds to be provided over the period of FY 1988-92. This initiative will fund demonstrations compatible with the recommendations of the Joint Report of the U.S. and Canadian Special Envoys on Acid Rain and the Presidential Task Force on Regulatory Relief to stimulate development and deployment of new means to reduce air pollution emissions. This initiative was to incorporate and build on the $150 million advance appropriation already in place for FY 1988. This, in addition to funding in prior years, has led to the selection of eleven cost-shared projects. In recent appropriations action, Congress provided $50 million in FY 1988 and $525 million in FY 1989 to permit a second round of projects. The second solicitation, which closed on May 23, focuses on cost-shared projects demonstrating near-commercial technologies which are capable of retrofitting or repowering existing coal using facilities to reduce harmful emissions in a cost-effective manner. The 54 proposals received in response to that solicitation are valued at more than $5.3 billion.

While Congress has already appropriated FY 1989 funding in advance, the Department is requesting that Congress appropriate the remaining $1.8 billion for the period FY 1990-92 so that additional solicitations may be planned and the full $2.5 billion multi-year program can be accomplished.

## FOSSIL, CONSERVATION, AND RENEWABLE ENERGY RESEARCH AND DEVELOPMENT

The FY 1989 budget requests for Fossil Energy, Conservation Research and Development, and Solar and Other Renewables are consistent with the Department's FY 1988 request but well below the levels appropriated by Congress. We believe the proposed levels are appropriate and concentrate

Federal funds on the highest priority research and development needs. Many of the specific activities being reduced or eliminated are special-interest projects, added last year in the Continuing Resolution. They include company-specific subsidies for commercial development, low-priority demonstration activities that preserve jobs or visibility for local interests, and funding for selected university buildings that have not passed merit review and are unnecessary for the conduct of current programs. The budgets in all three areas provide for cost-shared government/industry cooperative ventures.

Major elements of the Fossil Energy research program will focus on advanced research on acid rain-related technologies, with substantial activities in control technology, coal preparation, and combustion systems. The petroleum program will concentrate research and technology development on enhanced recovery of light and heavy oils.

Within Conservation Research and Development the Transportation program is the largest element. It will focus on vehicle energy efficiency improvements and on crosscutting research in advanced high-temperature materials, with emphasis on advanced ceramics.

The Renewable Energy program includes research and development on a broad cross section of technologies showing promise for diversifying the Nation's long-term domestic electric fuels, and on thermal energy supplies. Major subprograms include moderate and high temperature solar hear, photovoltaics, wind, biofuels, and geothermal technologies. I am pleased that the budget includes over $12 million in support of high-temperature superconductor applications.

## NUCLEAR ENERGY

Nuclear Energy research and development programs continue at approximately the same level as FY 1988. The program mix continues the emphasis begun in FY 1988 on providing special nuclear power sources for a variety of civilian and military missions. Advanced reactor research and development efforts are focused on the liquid-metal-cooled reactor, the high-temperature gas-cooled reactor, and supporting international collaborative arrangements. For the cleanup of uranium mill tailing sites and the West Valley Demonstration Project the Administration will propose legislation to clarify and limit Federal responsibility for future project costs.

## DEFENSE ACTIVITIES

The Department of Energy has major responsibilities for national defense, including producing nuclear weapons and materials to meet Department of Defense requirements. Funding for all aspects of our defense activities, including the Naval Reactors program, totals $8.1 billion in FY 1989, up from $7.7 billion in FY 1988. The increase is slightly above the estimated rate of inflation. The FY 1989 budget includes $1.9 billion for Weapons Research, Development, and Testing; $2.3 billion for weapons production and $2.0 billion for production of special nuclear material; $0.9 billion for defense waste programs; $0.6 billion for Naval Reactor Development; and $0.4 billion for other defense activities, such as Verification and Control Technology, Safeguards and Security, and Security Investigations.

Weapons Research, Development, and Testing shows no funding growth over FY 1988. Funding in support of nuclear directed energy weapons for the Strategic Defense Initiative is proposed at $285 million, as compared with $279 million in FY 1988. Weapons Production is also funded at approximately the same level as FY 1988. Materials Production increases from $1.8 billion to $2.0 billion, due primarily to higher funding for safety upgrades at the Department's materials production reactors.

The budget request provides for the operation of three production reactors at the Savannah River facility in South Carolina, but does not support funding the continued operation of the N-Reactor at Hanford, Washington, reflecting a reduction in Department of Defense material requirements. Increased funding is provided for safety upgrades of the nuclear facilities, consistent with recommendations from the National Academy of Sciences and internal oversight organizations. The budget also supports the deployment of Special Isotope Separation technology by 1995 and the completion of a New Production Reactor in the 1998-99 time frame. A review process is being set up to evaluate candidate technologies and sites for this reactor.

Defense Waste and Environmental Restoration funding increases from $895 million to $937 million. The budget continues construction of the Defense Waste Processing Facility, which is scheduled for completion and operation late in FY 1990 at the Savannah River Plant in South Carolina. It also supports the Waste Isolation Pilot Plant in New Mexico, which becomes operational in FY 1989. The budget continues construction of the Waste Vitrification facility at the Hanford, Washington site. Increased funding for environmental restoration is provided for cleanup of inactive hazardous or radioactive waste sites and facilities at all DOE Defense Programs installations.

## NUCLEAR WASTE FUND

The Nuclear Waste Policy Act Amendments Act of 1987 (Amendments Act) ordered a major redirection of the nuclear waste disposal program. The FY 1989 budget request of $449 million, up from $360 million in FY 1988, fully supports the redirected program. The FY 1989 request also includes the necessary funds for support and coordination with the MRS Review Commission, the Nuclear Waste Technical Review Board and the Nuclear Waste Negotiator.

Yucca Mountain, Nevada, was designated by Congress for detailed characterization to determine site suitability for the first geologic repository. No funds are being requested for the second repository program which was terminated with the passage of the Amendments Act. The closeout of these activities, as well as first repository activities in Texas and Washington, will be completed during FY 1988. The Amendments Act authorized a Monitored Retrievable Storage (MRS) facility as part of the overall waste management system and placed specific conditions on the timing of its siting, construction and operation. Following submission of the MRS Review Commission Report in June 1989, a DOE survey and evaluation of potential MRS sites is also authorized and preparation for definitive design and licensing will begin. FY 1989 funding will continue program and regulatory compliance and financial assistance activities.

## URANIUM ENRICHMENT

The Department of Energy is charged with meeting commercial and government requirements for enriched uranium economically and reliably. It is a goal of the Administration to turn the uranium enrichment enterprise over to private sector management, and as part of the FY 1989 budget the Department is submitting legislation repealing the prohibition on studying or proposing privatization of the uranium enrichment enterprise. This prohibition does not allow for the investigation of legitimate ideas, nor does it permit the gathering of necessary information to analyze options that may be in the National interest. Further, the prohibition prevents the Executive Branch from carrying out its Constitutional duties to make proposals for the consideration of Congress. While uranium enrichment remains a government program, the Department seeks to keep it strong and healthy to ensure its long-term vitality and create the opportunity for transition to private ownership.

The FY 1989 program is designed to reduce the cost of providing enrichment services. The program will continue to draw down the existing stockpile of enriched uranium, thus reducing the need for purchased power to operate the gaseous diffusion plants to meet customer requirements. Revenues in excess of program costs will accrue to the Treasury.

## NAVAL PETROLEUM RESERVES

A major legislative initiative is the Administration's proposal to sell Naval Petroleum Reserves (NPR) 1 and 3 and apply the proceeds from the sale to create a 10 million barrel Defense Petroleum Inventory and to fill the

Strategic Petroleum Reserve at a rate of 100,000 barrels a day until 750 million barrels are in storage. These changes would significantly enhance national security in the event of an oil supply disruption.

The budget assumes that the NPRs will be sold at the end of FY 1989, after Congress passes legislation authorizing the sale. Sales proceeds of $3.5 billion are assumed in the budget, with $3.2 billion received in 1989 and $0.3 billion in 1990. The actual sales proceeds will depend on market forces when the NPRs are sold. The FY 1989 budget request supports operation of the NPRs for the full year.

## STRATEGIC PETROLEUM RESERVE

Assuming the NPR divestiture proposal is enacted, the total FY 1989 program level for the Strategic Petroleum Reserve (SPR) is $1.2 billion. Of that amount approximately $334 million is requested under current law for continued fill of SPR at a rate of 50,000 barrels per day (BPD), consistent with the fill rate provided for in the FY 1988 Continuing Resolution. The FY 1989 program also includes a request of $175 million for facilities development and management. This will permit continuation of full-scale development of SPR storage capacity and increased distribution capability.

Contingent upon enactment of proposed legislation authorizing sale of the Naval Petroleum Reserves, as noted above, the proceeds from this sale would be used to increase the SPR fill rate to 100,000 barrels per day, and to acquire 10 million barrels of crude oil for a Defense Petroleum Inventory. At the end of FY 1989, based on a fill rate of 100,000 barrels per day, the SPR will contain approximately 588 million barrels of oil.

## POWER MARKETING ADMINISTRATIONS

The principal issues concerning the Power Marketing Administrations involve divestiture and, for Bonneville Power, financing the Third A.C. Intertie in the Pacific Northwest. The Department will continue its effort to sell the Alaska Power Administration, and will seek enactment of legislation to study divestiture of the Southeastern Power Administration.

An estimate of the borrowing authority required for Bonneville to finance the Third A.C. Intertie in the Pacific Northwest is presently not included in the FY 1989 budget pending completion of the Bonneville non-Federal participation study. The decision to not include funding at this time is made without prejudice to the study or the ultimate funding recommendation. After the study is completed, a recommendation will be made on the question of Federal and/or non-Federal participation in the project.

## CONSERVATION GRANTS

The Conservation Grants program has provided funds to State and local governments to undertake energy conservation measures. The FY 1989 request is limited to program direction funds to provide technical assistance to the States and monitoring of the State's use of petroleum violation funds. The States have available to them very large sums specifically earmarked for conservation and other energy-related activities from the settlement of oil pricing and allocation violations. In the past three years, $3.5 billion has been returned to the States in major settlements. At present, future overcharge recoveries are estimated to be approximately $2.1 billion, a substantial portion of which would be returned to the States. Under these circumstances, continued use of appropriated funds for grants is no longer necessary.

Mr. Chairman, I believe the budget I have summarized meets the Department's responsibilities in its several mission areas in a sensible and realistic manner.

## INTRODUCTION OF ASSOCIATES

Secretary HERRINGTON. Thank you, Mr. Chairman.

I would like to be very brief.

I have on my right Assistant Secretary Allen Wampler from fossil energy, whom you are well acquainted with. We have several staff here and budget staff for support in the event that we need to get particulars for any question.

I realize that it is unusual for me to speak late in the session. I would like to submit my written statement and my comments. I would be pleased to answer questions from you. I do not want to make a long presentation. I know you are very busy these days.

Senator BYRD. We had you scheduled earlier, and through no fault of yours we had to delay the hearing. I apologize for that. Proceed in your own fashion, if you would like to summarize it.

## SUMMARY OF FISCAL YEAR 1989 REQUEST

Secretary HERRINGTON. Our request this year has tried to meet Gramm-Rudman-Hollings and the agreements that have been put forward. We have in this budget reaffirmed our objectives of limiting the Federal activities, divesting activities.

Our budget request is $16.1 billion this year for new budget authority. This is a 13.9-percent increase over 1988. Despite this increase, I think this budget is part of an overall administration budget which meets the ceilings and conforms to the budget limit.

Much of the increase is a doubling of the strategic petroleum reserve fill rate and our first year construction funding for the superconducting super collider activity, and of course significantly higher funding for clean coal, which has already been agreed to by Congress.

Our request for the Clean Coal Technology Program is $525 million. This has been agreed to by Congress as an advance appropriation. This is a significant increase over fiscal year 1988's $50 million, plus the $149 million provided in advance appropriations several years ago.

Our goal here is to place the President's complete 5-year $5 billion plan, 50 percent Federal and 50 percent private, by having Congress appropriate in advance the remaining $1.8 billion of the total Federal share of $2.5 billion.

The second clean coal solicitation, which closed on May 23, resulted in 54 proposed projects valued at more than $5.3 billion, with an average private sector contribution of $3 for every $2 in Federal funds.

Our budget request for fossil energy R&D and conservation R&D is below the 1988 appropriation levels but is comparable to our 1988 request.

We have concentrated on our highest priority research needs: acid rain-related technologies, coal preparation, and combustion systems, and increased efficiencies in transportation, in buildings and industrial processes. Fossil energy R&D is $167 million and $81 million is requested for conservation R&D.

A major initiative is the Naval Petroleum Reserves No. 1 and No. 3 sale in California and Wyoming. The proceeds would be applied to doubling the fill rate of the strategic petroleum reserve and creating a dedicated defense petroleum inventory of 10 million barrels. We are assuming a sales price of $3.5 billion with $3.2 billion received in 1989 and $0.3 billion in 1990.

If the NPR's are sold as planned, we will fill the SPR at 100,000 barrels a day, twice the rate that we are currently filling it. Assuming the sale, we would have about 588 million barrels of oil in storage at the end of fiscal year 1989. The strategic petroleum reserve now contains approximately 545 million barrels, which is 400 million barrels higher than existed in 1980.

Our request for conservation grants, Mr. Chairman, is $8.6 million to permit a continued monitoring of these funds made available to the States in the past. Further direct appropriations, in our estimation, are no longer necessary except for the monitoring function. The States have received $3.5 billion in the past 3 years in overcharge settlements. Future overcharge recoveries are estimated to be $2.1 billion, a substantial portion of which would be returned to the States.

Mr. Chairman, that completes my brief summary.

Senator BYRD. Thank you, Mr. Secretary. And thank you, Mr. Wampler. Mr. Wampler has been with me in West Virginia on occasion. We are delighted to have you here this morning.

At this point I would like to express some views of my own. As one who has a keen interest in energy policy in general, and in the contribution that coal in particular can make to our energy requirements, I cannot help but note the lack of attention which this administration has given to coal research. In each of the last six budgets which this administration has forwarded to Congress, coal research requests have been less than $170 million.

Congress has consistently doubled or tripled the President's proposed investment in fossil research. It has been the Congress which has recognized the importance of coal to our energy future, and it has been the Congress which has established the priorities in energy research funding. I think that this is an unfortunate situation, because this administration has dragged its feet on spending of appropriations for fossil research and has failed to develop coherent program plans, even in the light of the clear knowledge that Congress would provide stable funding for this research in subsequent years.

I hope, Mr. Secretary, that you will help the administration develop a greater appreciation for the fact that coal represents 93 percent of our domestic fuel reserves while supplying only 23 percent of our domestic energy needs. Clearly, there is a tremendous potential that is not being realized. It is within your jurisdiction to improve our ability to use coal through well organized and well targeted research. But we need an energy policy that recognizes the importance of coal if we are going to realize its potential.

## CLEAN COAL TECHNOLOGY

Now, changing subject, I would like to commend you, Mr. Secretary, on the progress which your Department has made with the Clean Coal Technology Demonstration Program. We have come a long way from the point a little over 2 years ago when the administration was opposing my efforts to start this program. I want to thank you for your efforts in this policy transition.

The Department's second clean coal technology solicitation closed 2 weeks ago. I understand that a total of 54 proposals were received by the Department. Is that correct?

Secretary HERRINGTON. Yes, sir.

Senator BYRD. I was also pleased to learn that there are two projects proposed to be sited in West Virginia. American Electric Power Co. has proposed a major project in Mason County, WV. This would be a $579 million pressurized fluidized bed application which would repower an existing electric generation plant. I am told that this technology has the potential of capturing more than 95 percent of the sulphur emissions and would permit utilities to use high sulphur coal and still meet stringent new source performance standards. All this could be done at much less cost to the electric power consumer than present technologies.

It is noteworthy that American Electric Power's Mason County application under clean coal II would provide nearly 70 percent non-Federal cost sharing. I think this is the kind of plant that we all had in mind when the Clean Coal Technology Program was initiated, and the high levels of cost sharing demonstrate a level of commitment by the utility industry, American Electric Power in this case, which is exemplary.

The Virginia Electric Power Co. [Vepco] has proposed a project at Mount Storm, WV, which would employ deep physical coal cleaning on the front end and which would produce 125 megawatts of power in a circulating fluidized bed combustor. As I understand it, Vepco would clean the coal feed in two stages.

The first stage would produce ultraclean coal that would be fed directly into conventional boilers and would reduce emissions by 10 percent.

In the second stage, the residual coal which could not be economically cleaned further would be fed into the circulating fluidized bed combustor which inherently produces emissions clean enough to meet even tough new source performance standards.

So there is a symbiosis between the two stages of the project. The ultraclean coal permits the existing plant to operate cleaner and more efficiently. At the same time, the circulating fluidized bed optimizes the process by cleanly using the residual dirtier coal that might otherwise be wasted.

I urge you to give both of these applications every possible favorable consideration and I look forward to following their progress through the selection process.

Is there anything you would like to say in response to what I have said thus far?

Secretary HERRINGTON. Mr. Wampler will comment on that.

Mr. WAMPLER. Thank you. Mr. Secretary.

We were very pleased with the 54 proposed projects valued at $5.3 billion. We are intending to make selections from these 54 proposals on or before October 30. So we are moving forward very expeditiously.

The point you made about the industrial community again being willing to participate on much more than a 50–50 cost-sharing basis, we consider to be very significant. An initial look at the projects shows us that we have a large variety of technologies proposed and we feel that we now have firm evidence to support the basis for our request for advance appropriations in 1990, 1991, and 1992.

### CLEAN COAL SOLICITATION

Senator BYRD. You said that you received 54 responses to the recent clean coal solicitation. This past April 18 Assistant Secretary Wampler told the subcommittee that a response of some 15 to 20 projects would be adequate to use all the $575 million available for the second clean coal solicitation. So the response was roughly three times greater than was necessary for a successful solicitation.

Secretary HERRINGTON. It was a very strong response.

Senator BYRD. Is the Department pleased with the number of responses and with the quality of the individual responses?

Secretary HERRINGTON. I think so, Mr. Chairman. We think this program is moving well and is a very valuable program.

Senator BYRD. It is my understanding that the total value of the 54 projects that were proposed amounts to some $5.3 billion. This is 10 times greater than the actual dollars available for Federal assistance, $536 million. Is that correct?

Secretary HERRINGTON. Yes, sir.

Senator BYRD. Would you consider this to be a very competitive solicitation and one that shows a strong commitment by industry to this Clean Coal Technology Demonstration Program?

Secretary HERRINGTON. Yes, sir; especially the cost sharing aspects are very successful, I think. The private sector has a great deal of confidence in them. If they didn't have confidence in them they would not propose to put up some of their own money.

Senator BYRD. What is the overall non-Federal cost sharing percentage proposed in the 54 responses?

Mr. WAMPLER. About 58 percent.

Senator BYRD. Would you elaborate on the administration's view of the importance of these clean coal demonstrations toward solving the acid rain problem and to our commitment to the Canadians.

Secretary HERRINGTON. It seems to me, Mr. Chairman, that this is demonstrable evidence of the commitment to clean up acid rain or to go toward a solution. Depending on which technologies we discuss in the mix, some more than others, this certainly is a national commitment that I think is unprecedented in the time that I have been at the Department of Energy.

Senator BYRD. How important do you see these demonstrations as we strive to solve the acid rain problem?

Secretary HERRINGTON. I think they are important; not only for the acid rain, which I think is very important, as you have pointed out many times, but also for our energy security. We are up to 57 percent of electricity being generated by coal in the country now, and that is one of our strong points. I think the new technologies are very important on that basis as well as on the acid rain problem.

### ACID RAIN ISSUE

Senator BYRD. Just how important do you see these demonstrations, though, in connection with the acid rain problem?

Secretary HERRINGTON. I do not know how to stress their importance. They are very, very important to the acid rain issue, which is a very big political issue not only here but in Canada, and I think it is an environmental issue that needs to be addressed. I would rank them as very, very important.

Senator BYRD. A moment ago I mentioned the figure of 95 percent, saying that the technology that is going to be used in Mason County, WV, has the potential of capturing 95 percent of the sulphur emissions. It seems to me that would be very important in connection with our efforts to deal with the acid rain problem. It seems to me that is really going a long way toward dealing with that problem.

Secretary HERRINGTON. Certainly 95 percent would be tremendous progress from where we are today. We still have a question of what causes acid rain. I do not think you can blame acid rain totally on coal. I do not think the scientists have come to that point yet. So certainly 95 percent takes coal out of the picture as a cause of acid rain, but there might be other things out there causing acid rain besides coal.

Senator BYRD. There are other things. There are automobile exhausts, swamps, and various other causes.

As compared with 95 percent, tell the committee about the efficiency of the present conventional type scrubbers.

Secretary HERRINGTON. I would like to ask Mr. Wampler to address that. He is more knowledgeable on that than I am.

### COST OF SCRUBBERS

Mr. WAMPLER. Currently scrubbers have about 90 percent removal capability. The new technologies, Mr. Chairman, go as high as 99 percent.

Senator BYRD. Scrubbers?

Mr. WAMPLER. No; the new clean coal technologies.

Senator BYRD. But you are talking about the clean coal program.

Mr. WAMPLER. Yes.

Senator BYRD. But how do these new technologies compare to conventional scrubbers.

Mr. WAMPLER. They can run as much as 30 percent higher, starting around 50 to 70 percent for some of the older technologies. They do a much better job. Some of the technologies are much more efficient also than the conventional scrubbers.

Senator BYRD. How costly are the scrubbers?

Mr. WAMPLER. Conventional scrubbers are very expensive. In fact, some of the scrubbers cost more than the original powerplant cost. They have some additional problems with reduction of wet sludge, which is extremely difficult to utilize or to dispose of.

Senator BYRD. In terms of dollars, what is the range of costs for scrubbers?

Mr. WAMPLER. The scrubbers are estimated to be running 9 to 11 mills per kilowatthour. Some of the new clean coal technologies are ranging from zero to 2 mills per kilowatthour. Some of these are tremendous cost saving devices.

Senator BYRD. Tell us a little more about the cost in terms of dollars of a scrubber so we might better understand. What are some of the price ranges? Are you talking about $10 million? Are you talking about $100 million? $200 million? $150 million?

Mr. WAMPLER. A typical scrubber is about $100 million, I am told.

Senator BYRD. It has a sludge problem and it is not as efficient?

Mr. WAMPLER. It actually decreases the efficiency of a powerplant by as much as 8 percent.

## ACID RAIN LEGISLATION

Senator BYRD. What would be the impact on utility rates of the acid rain legislation that is presently in the mill?

Secretary HERRINGTON. Obviously it would be very deleterious. I think one of the things that people forget is that the private utilities in this country have spent $60 billion already in cleaning up the air since the Clean Air Act of 1970. Certainly adding scrubbers at this point, with the cost that Secretary Wampler has laid out, you get a substantial increase in utility rates, and also I think you hurt the flexibility of the utility to operate.

Senator BYRD. How many scrubbers do we have in place and in the planning stage in this country?

Mr. WAMPLER. We have 142 in place at this point in time. I am told we have about 60 planned.

Senator BYRD. How many do the Canadians have in place?

Mr. WAMPLER. The Canadians have none in place, Mr. Chairman.

Senator BYRD. Do they have any planned?

Mr. WAMPLER. They recently have planned two scrubbers and have asked for the Federal Government's permission to install those scrubbers. To my knowledge, no action has been taken on this request at this point.

Senator BYRD. They are not in a very good position to point the finger at us then.

Mr. WAMPLER. The Canadian emissions reductions have largely occurred because of their economic situation and closing down smelters. The emissions from their coal fired powerplants have actually risen in the last several years.

Senator BYRD. When do you think this new technology is really going to be in place and have an impact on sulphur emissions?

Mr. WAMPLER. There is a different timetable for different technologies, beginning around 1990 with a large set of technologies available in the mid-1990's. I think the important thing to note about the new technologies is that they will actually fix the problem rather than just patching it. If you install scrubbers on existing plants, as some of the legislation would have utilities do, it causes emissions to decrease for a period of time, but then they start back up. With the new technologies you will get a much longer term fix of the problem rather than just patching it.

Senator BYRD. Do the scrubbers have any effect on nitrogen oxides?

Mr. WAMPLER. No, Mr. Chairman; they do not.

Senator BYRD. Does the new technology reduce nitrogen oxide?

Mr. WAMPLER. Yes; many of the new technologies will reduce nitrogen oxide emissions. I think another important thing that we tend to overlook is that if you get increased efficiency you also have a positive effect on carbon dioxide. That is going to become a much debated environmental issue in the future.

Senator BYRD. Elaborate on that just a little bit.

Mr. WAMPLER. If you are burning less hydrocarbon to produce a given amount of electricity, you have a positive effect on reducing carbon dioxide.

Senator BYRD. Will this have a positive effect on utility rates?

Mr. WAMPLER. It should have a positive effect. Some of our studies show that the repowering concepts can be installed with little or no ultimate life cycle capital investment and can have a very positive effect on utility rates over a period of time.

## IMPLEMENTATION OF CLEAN COAL TECHNOLOGY

Senator BYRD. If your new technology is available in the mid-1990s, it would still be some years before widespread deployment can take place, wouldn't it?

Mr. WAMPLER. Yes, Mr. Chairman; that is true.

Senator BYRD. How do you view the timeframe?

Mr. WAMPLER. As soon as the technologies are sufficiently demonstrated and due to the fact that we are going to be experiencing, in our estimation, a 2-percent increase in demand, they will start in the 1990's. Utility decisionmaking is a very complicated process. We do not have any real definitive timetables, but we are looking at around the year 2000, I would suspect, for a pretty widespread deployment of these things. They could well start deploying in the mid-1990's.

Senator BYRD. What kind of comparison would you make between the cost of additional scrubbers and the cost of utilizing the new technology insofar as utilities are concerned?

Mr. WAMPLER. We are using a cost estimate, as I recall, of the installation of scrubbers at around $200 billion total cost. The clean coal technologies, the repowering technologies, could well deploy on their own at a cost of zero to 2 mills increase per kilowatthour versus 9 to 11 mills per kilowatthour. So it would be much, much less expensive to deploy some of these new technologies.

Senator BYRD. Can you state that in different terms so it will be more understandable? You spoke of the cost of scrubbers as being something like $200 billion. Can you tell us about the cost of the new technologies in different terms?

Mr. WAMPLER. In order to predict a cost for the new technologies you would have to know the technology mix. We are developing a broad variety of these technologies, so it is almost impossible to determine the cost. You could take a single technology and consider that as 100 percent deployed and come up with a cost, but it is very difficult if not impossible to get a hard number on that. It is safe to say much less.

Senator BYRD. Much less than $200 billion?

Mr. WAMPLER. Yes, Mr. Chairman.

## ADVANCE APPROPRIATIONS

Senator BYRD. When you were before the subcommittee in April, Mr. Wampler, you told us that advanced appropriations for clean coal technology are important for two principal reasons, and I quote from your testimony:

> One, it is important for the United States to demonstrate its commitment to the full implementation of the special envoy's report on acid rain. This is necessary both in our international relations and in assuring domestic firms that the Government is prepared to stand behind its commitment to cost sharing.
>
> Second, it is important from an R&D perspective. Several promising clean coal concepts are now in the R&D pipeline. Many are not sufficiently mature to compete for clean coal funds today but they could be considered as candidates within the next 2 to 3 years.
>
> For their development to continue today, with as much private financing as possible, sponsors need to have confidence that the Federal commitment and the necessary cost sharing funds will be available to take the final step at the end of their development phase. Funding for the clean coal program, therefore, serves as a stimulus for continued private R&D today.

Do you agree that it is important to demonstrate to the Canadians a firm commitment that the U.S. Government will provide the full $2.5 billion to be matched by industry for the construction of clean coal projects?

Secretary HERRINGTON. Yes, sir, we do.

## DISCRETIONARY VERSUS MANDATORY FUNDING

Senator BYRD. If so, then why is the administration insistent on scoring these appropriations against domestic discretionary funding? Would it not be more persuasive if these clean coal funds were scored as mandatory appropriations?

Secretary HERRINGTON. I am not sure I am qualified to answer that, Mr. Chairman. You are much more knowledgeable on this question than I am because you settle the budget across the whole Government rather than just the Department of Energy. The thing that I have noticed is there is an awful lot of money that is not discretionary in the Government and I think that hurts the flexibility of the Congress and of the executive branch. I am partial toward discretionary money if possible. I do not think that should in any way reduce our commitment, both this committee and the Energy Department and the administration, to obtaining the full money in the timeframe that has been provided. I am just not sure that it is good for governments to lock in nondiscretionary money. I just do not have enough faith in that system.

Senator BYRD. In view of the importance of our international commitments related to the clean coal program, I am concerned about proposals by some to stretch out the current $575 million into fiscal year 1990 and beyond. In your view, what would be the impact of rescinding several hundred million dollars of the fiscal year 1989 appropriation for clean coal and reappropriating that same sum for use in fiscal year 1990 and fiscal year 1991?

Secretary HERRINGTON. My personal feeling, and as Secretary of Energy, I think that would be very shortsighted. That would not be a good idea for this program, which I think has been very successful, but also for the energy security that we have both been working for.

Senator BYRD. The administration has requested an additional $1.775 billion in advance appropriations for clean coal for fiscal year 1990 through 1992. Since no funding is actually requested for fiscal year 1989, why did the administration request these advance appropriations in the bill which the subcommittee will be considering in a few weeks?

Mr. WAMPLER. I am not sure, Mr. Chairman, that I understand that question.

Secretary HERRINGTON. Can we submit that for the record?

Senator BYRD. Yes.

The administration is not requesting any funding for fiscal year 1989. Yet it is requesting an additional $1.775 billion in advance appropriations for clean coal for fiscal year 1990 through 1992. The question is, why did the administration request these advance appropriations in the bill which the subcommittee will be considering in a few weeks when no funding was requested for 1989?

Secretary HERRINGTON. Mr. Chairman, Mrs. Smedley has the answer.

Mrs. SMEDLEY. Mr. Chairman, we didn't request money for fiscal year 1989 because of the advance appropriation that the Congress gave us in fiscal year 1988. We got $525 million for fiscal year 1989, which we think meets our requirements. We did ask the committee for an advance appropriation for 1990, 1991, and 1992 to fulfill our commitment to a total $2.5 billion clean coal program over a 5-year term. We do hope that the Congress will make that advance appropriation and support our commitment to that level.

## MORGANTOWN ENERGY TECHNOLOGY CENTER

Senator BYRD. The fiscal year 1988 continuing resolution included $4 million to initiate construction of a new administrative wing at the Morgantown Energy Technology Center. This new facility will replace several temporary office trailers which have been in use at the center for up to 12 years.

The administration subsequently included this funding on its pork list. Do you concur with the description of this project as pork, Mr. Secretary?

Secretary HERRINGTON. Mr. Chairman, I didn't have a lot to do with putting together the pork list. I am not sure that I totally support all that is on the pork list, as they call it. We, of course, have been negotiating with OMB on a number of items in our budget. You have two buildings here. We think one is very beneficial. We are going to see if we can provide the money on that. The other one we are less enthusiastic about simply because of the shortage of funds.

Senator BYRD. When you mention two buildings, what do you mean? What do you mean by the the other one?

Secretary HERRINGTON. Morgantown Energy Technology Center is one building that I think OMB put on the pork list. The other was the West Virginia University Energy Research Center. Both of these came late to us, so we had trouble getting them in this year. We are working on financial support in the fiscal year 1990 budget request for Morgantown. The West Virginia University building was an affordability issue. I don't think we can say we are against either one of them; it is just an affordability issue.

Senator BYRD. The administration has requested funds in fiscal year 1989 to start construction of a new administrative building at Elk Hills for the naval petroleum reserves to replace temporary office trailers that have been in use for approximately 7 years. That is compared with those that have been in use in West Virginia at the Morgantown Energy Technology Center for 12 years. We are talking about trailers that have been in use at the Morgantown Energy Technology Center for 12 years. The administration calls that pork. But at Elk Hills we are talking about replacing temporary office trailers that have been in use for approximately 7 years.

These situations seem similar except that the situation in Morgantown has continued for a longer time. Then why is the NPR building included in the budget request and the Morgantown building called pork, or why would there be an affordability question associated with that situation whereas there apparently is none associated with the Elk Hills building?

Secretary HERRINGTON. Let me ask Mr. Wampler to answer that.

Mr. WAMPLER. Let me first say that we certainly agree that the Federal building in Morgantown is something that is needed because those temporary quarters have existed for a long time. The reason we look at these two buildings differently is that the naval petroleum reserves is in operation and is comparable to a private oil company that sells crude oil to the tune of approximately $750 million a year. Out of operating funds, that money is easy to come by.

On the other hand, with the Morgantown building, you have a choice between building and research dollars in times of tight budgets. We made the choice to go for maximum research dollars instead of putting money into buildings. That is the different way that we looked at those two operations.

Senator BYRD. Don't you think 12 years is a mighty long time for those people to have to operate in trailers, and why shouldn't that be a high priority item when we are talking about Elk Hills where the trailers have been in use for 7 years? You are trying to construct a new building at Elk Hills at the same time that you are proposing to sell Elk Hills. How do you explain that?

Secretary HERRINGTON. That would be part of the sale price. If you had a building there, that would increase the value of it.

I think 7 years is too long and I think 12 years is too long. I don't think people should have to work out of trailers to carry out important functions. I would say that to see anybody in the Government for a period of 1 year or 2 years working out of trailers is not desirable.

### MORGANTOWN ADMINISTRATION BUILDING GROUNDBREAKING

Senator BYRD. Then I will do everything possible to see the construction of the Morgantown administration building through to completion. I would like to invite you to join me in Morgantown in July for the groundbreaking for this building at the Energy Technology Center. Would you take me up on that?

Secretary HERRINGTON. Sir, I will get right back to you.

Senator BYRD. Then you can see the condition first hand. I offer this invitation in all seriousness. I hope you can be there. We would be privileged to have you and would like to have you.

### WEST VIRGINIA UNIVERSITY ENERGY CENTER

While we are on the subject of Morgantown, Vice President Bush recently reviewed the newly established National Research Center for Coal and Energy at West Virginia University. While there he applauded this new center, which will be heavily cost shared by non-Federal sources, and he said: "This university is on the cutting edge of clean coal technology * * * this research is absolutely critical."

The Vice President also noted that the Nation cannot develop new energy sources "without having coal on the forefront."

Do the Vice President's statements signify a shift in the administration's views on the National Research Center for Coal and Energy? I ask the question because OMB Director Miller had included this project on his pork list.

Secretary HERRINGTON. Mr. Chairman, I cannot speak for the Vice President. From my own standpoint as energy Secretary, we think coal is very important. I think I have stressed that over the last 4 years at the hearings and with our work in getting right to this clean coal program, but I do not know what he was referring to in those remarks. I also cannot comment on the pork list. I don't know.

Senator BYRD. Nobody would expect you to speak for the Vice President. He apparently feels that this is an important center when he says "this university is on the cutting edge of clean coal technology."

Secretary HERRINGTON. There is no question that it is. The university is on the cutting edge and they have done a very good job.

Senator BYRD. "This research is absolutely critical," according to the Vice President. Is that the view of the administration?

Secretary HERRINGTON. I think our view of the research on the clean coal technology is that it is critical. I think the word is "critical." We can support that word.

Senator BYRD. Can you support the effort that is being made at West Virginia University in that regard?

Secretary HERRINGTON. I think it is an important effort.

Senator BYRD. Do you believe that it is the Federal role to stimulate energy research at locations where there is strong private sector interest and a willingness to cost share that will make the Federal dollars go further?

Secretary HERRINGTON. I like that definition of research. I think it fits in directly with administration policy, especially the cost sharing portion of it.

Senator BYRD. I agree with the Vice President in regard to his observations. I believe that the National Research Center for Coal and Energy at West Virginia University offers an excellent opportunity to stretch Federal research dollars and to involve industry directly in this research activity. This approach facilitates the commercialization of energy technology.

### OMB LIST OF WASTEFUL SPENDING ITEMS

Turning to another matter. Mr. Secretary, I want to be certain that we understand your position regarding the earmarking of specific projects in the fiscal year 1988 bill and accompanying report. OMB Director Miller has urged you to review the list of so-called wasteful items and to see if your department has higher priority items on which to use the money. Have you complied with Mr. Miller's direction?

Secretary HERRINGTON. Mrs. Smedley informs me that we are still looking at the letter. We have responded on some and some are still under negotiation.

Senator BYRD. Do you anticipate any shift in spending priorities from those as specified by the committee?

Secretary HERRINGTON. I do not. Again, we would have to settle that with OMB. I do not think there is a good precedent for working outside of any reprogramming procedures that are set up today.

Senator BYRD. Can the committee have your personal assurance that any shift which is contemplated will be submitted to the committee for prior approval pursuant to the reprogramming guidelines?

Secretary HERRINGTON. You have my personal assurance that we will do our congressional notification and reprogramming according to law.

Senator BYRD. I will have some additional questions for submission, if you would provide a response for the record, Mr. Secretary.

Secretary HERRINGTON. I would be pleased to do that, Mr. Chairman.

Senator BYRD. Possibly you also, Mr. Wampler.

Secretary HERRINGTON. We will do our best.

Senator BYRD. Senator McClure.

Senator MCCLURE. Thank you very much, Mr. Chairman.

Let me follow up on that last one. I want to make certain there isn't any misunderstanding about your position with respect to the OMB guidelines. As you know, it is a little disconcerting to Members of the Congress. The whole exercise has not been very productive, in my view.

I heard your answers to the questions of the chairman. I have only one further question.

It is my understanding that the Department did respond to the May 15 report as requested by the director and indicated it was your intent to comply with all congressional add-ons. Is that accurate?

Secretary HERRINGTON. Yes; that was our response to OMB. We got another letter back.

Senator MCCLURE. I understand that. That is not all bad. The paper industry is doing very well. Profits are up and employment is good.

Secretary HERRINGTON. You are quite right, sir.

### CLEAN COAL OUTLAYS

Senator MCCLURE. The CBO estimates that of the clean coal advance appropriation for fiscal year 1989 only $53 million of the $525 million will outlay for fiscal year 1989.

What are your outlay estimates for those funds?

Mr. WAMPLER. We need to provide that for the record.

Secretary HERRINGTON. I'm sorry. I don't have that, Senator McClure.

Senator MCCLURE. If you would do that, please.

[The information follows:]

### CLEAN COAL TECHNOLOGY OUTLAYS

The following chart provides outlay estimates associated with the Clean Coal Technology Program including our projected outlays for the advance appropriation of $525 million in fiscal year 1989.

Clean Coal Technology JUNE 2, 1988

(Dollars in Millions)

| Program | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | Future Years | b/ Total |
|---|---|---|---|---|---|---|---|---|---|---|
| CCT-1 | | | | | | | | | | |
| BA | a/ $99.4 | $149.1 | $149.1 | --- | --- | --- | --- | --- | --- | $397.6 |
| BO | 0.3 | 6.9 | 49.8 | 139.2 | 98.0 | 76.2 | 21.4 | 5.8 | --- | 397.6 |
| OBS | 0.4 | 21.4 | 126.3 | 242.9 | 6.6 | --- | --- | --- | --- | 397.6 |
| CCT-2 | | | | | | | | | | |
| BA | --- | --- | 50.0 | 525.0 | --- | --- | --- | --- | --- | 575.0 |
| BO | --- | --- | 5.6 | 15.5 | 126.9 | 220.5 | 105.7 | 82.8 | 18.0 | 575.0 |
| OBS | --- | --- | 24.7 | 60.3 | 250.0 | 200.0 | 40.0 | --- | --- | 575.0 |
| CCT-3 | | | | | | | | | | |
| BA | --- | --- | --- | --- | 575.0 | 600.0 | 600.0 | --- | --- | 1,775.0 |
| BO | --- | --- | --- | --- | 49.4 | 130.3 | 473.7 | 488.9 | 632.7 | 1,775.0 |
| OBS | --- | --- | --- | --- | 70.1 | 447.0 | 594.3 | 526.8 | 136.8 | 1,775.0 |
| Totals | | | | | | | | | | |
| BA | $99.4 | $149.1 | $199.1 | $525.0 | $575.0 | $600.0 | $600.0 | --- | --- | 2,747.6 |
| BO | 0.3 | 6.9 | 55.4 | 154.7 | 274.3 | 427.0 | 600.8 | 577.5 | 650.7 | 2,747.6 |
| OBS | 0.4 | 21.4 | 151.0 | 303.2 | 326.7 | 647.0 | 634.3 | 526.8 | 136.8 | 2,747.6 |

a/ Reflects general reduction of .6 percent against the total appropriation of $400 million netting to $397.6 million.

b/ None of the above estimates reflects reductions for the Small Business Innovative Research Program (SBIR).

**NOTE: Dollars in FY 1986 and FY 1987 are actuals.**

### NAVAL PETROLEUM RESERVE REVENUES

Senator McCLURE. Have you worked with the Congressional Budget Office to develop a consistent estimate?

Mr. WAMPLER. We have not at this point in time, to my knowledge. We will certainly be looking at doing that.

Senator McCLURE. In the fiscal year 1988 continuing resolution bill language was included which provided that revenues from the naval petroleum reserve which were in excess of the administration's $836 million estimate shall be deposited in the strategic petroleum reserve petroleum account.

Do you anticipate that there will be excess revenues?

Secretary HERRINGTON. No; we do not anticipate excess revenues, and if there are, of course we would do that.

Senator McCLURE. If there were excess revenues, do you have any idea what you would do with that additional money? Would you purchase additional oil above the 50,000 barrel a day requirement?

Secretary HERRINGTON. I would think that would be a smart thing to do with it. I would endorse that proposition.

### STRATEGIC PETROLEUM RESERVE FILL RATE

Senator McCLURE. What is the maximum average daily rate which SPR can be filled in fiscal year 1989 and fiscal year 1990?

Secretary HERRINGTON. I think we average out at 55,000 barrels now. Our maximum capacity is just a shade over 100,000 barrels. I heard 114,000 at one time.

Senator McCLURE. The administration has requested $1.2 billion in fiscal year 1989 for the SPR. Of this amount, $334 million is allocated for continued fill of SPR at a rate of 50,000 barrels a day; $173 million is for continued facilities development and management. The remainder of this amount is contingent upon passage of proposed legislation authorizing the sale of the naval petroleum reserve. Funds generated from the sale of NPR would be used to increase the SPR fill rate by an additional 50,000 barrels per day and acquire 10 million barrels of crude oil for a defense petroleum inventory.

### DEFENSE PETROLEUM INVENTORY

Can you explain the mechanics behind the defense petroleum inventory, and would this be a shift in policy?

Secretary HERRINGTON. I think it would be a shift in that we have never specifically dedicated any portion of the strategic petroleum reserve to any one separate use. It has always been the policy of the Government, it is my understanding, to provide it generally into markets and use a market distribution.

Setting aside 10 percent obviously would have to be undivided. You could not have one tank just for defense and one tank for agriculture and one for hospitals and that type of thing. The only other caveat, obviously, is the 10-percent discretionary power the Secretary of Energy has over the amount involved.

Senator McClure. If the defense petroleum inventory did not exist, where would the Department of Defense get their oil in the event of an emergency?

Secretary Herrington. We looked at this problem during the February-March 1985 timeframe when we wrote that long report "Energy Security." The Defense Department played heavily in that report. The input they had at that time was that there was sufficient oil at their sources around the world and that they were not worried about war fighting capabilities. They especially looked at the European NATO commitment.

We looked at that again when we proposed the sale of naval petroleum reserves and the Defense Department again said if they could have 10 percent of the strategic petroleum reserve they would be more than satisfied.

I must tell you there was, I am sure, a facetious comment that was made at the time. The Secretary of Defense said that "we probably would get all of the strategic petroleum reserve if we need it." I assume in an emergency there might be some provisions made.

Senator McClure. But their official position was then and has been that they have sufficient supplies for their commitment to NATO?

Secretary Herrington. Yes, sir; to NATO, and also the Pacific, and they were not concerned about it. There are documents that were submitted at that time that put that position out.

Senator McClure. I know some of the information is classified. I will consider some of that a little further. I am really concerned about what the Department of Defense may wish to do. We seem to have shifting or differing or mismatching goals in the Department of Defense. I know that is not your problem, but I know you have some influence on it too. To say that we have enough petroleum to fight a war from secure supplies indicates to me that we are anticipating, at least in certain sectors, very limited warfare; that is, warfare of limited duration. If that is so, we are providing them too darn many weapons, because they have got enough weapons to last longer than their oil will. I am not quite sure that I know exactly how that is going to work. Maybe we capture the needed oil from the Russians.

Secretary Herrington. I am not as expert on that as you have been. You have followed this for years, Senator McClure. One thing I have noticed in evaluating the NPR sale for Elk Hills is the distribution system out of Elk Hills is very poor. Even with the oil in there, if we needed it for defense purposes, we could not get it out in adequate quantities to meet any kind of emergency. There are only a couple of pipelines. Four corners pipeline has got more work to go on it. There is one Union Oil pipeline. I just do not see that as a good defense reserve. It would be better in a better distribution system at the strategic petroleum reserve.

### GREAT PLAINS COAL GASIFICATION PLANT

Senator McCLURE. Shifting to the Great Plains Coal Gasification plant project, the Department of Energy is in the process of offering that plant for sale. Late last year Shearson Lehman Brothers completed a descriptive memorandum which describes the facility in great detail. Indications of interest in the Great Plains facility were to be submitted no later than November 20, 1987. From these indications, DOE will invite one or more of the prospective purchasers to participate in a more extensive process.

Where do we stand now with respect to the sale?

Secretary HERRINGTON. Apropos this hearing, bids were submitted last Thursday for the purchase. They are currently being evaluated by Shearson and by the Department of Energy. As soon as we are able to evaluate those, they will be available.

I would prefer not to give the numbers of bids or the companies that bid in open hearing, because I think it damages our ability to negotiate a better sale.

Senator McCLURE. But you had multiple bids?

Secretary HERRINGTON. We had multiple bids.

Senator McCLURE. Does the bidding process provide for the continued operation of the plant?

Secretary HERRINGTON. One of the strongest factors that we consider in evaluating the bids will be continued operation of the plant. I think that is important.

### NAVAL PETROLEUM RESERVES MARKETING PLAN

Senator McCLURE. The same investment banking firm, Shearson Lehman Brothers, completed a marketing plan for Naval Petroleum Reserves No. 1 and No. 3. The plan was prepared to assist the Department in the determination of the value of the assets from the private sector's viewpoint. In addition, they were to develop a marketing plan that would maximize the sales proceeds from divestiture.

Several recommendations were made in the report if authority were provided to proceed with the proposed sale. One of the recommendations was for DOE to contract for a comprehensive reserve report by a nationally recognized independent petroleum engineering consultant. Apparently there are substantial differences among existing estimates of recoverable reserves.

Can you briefly discuss the differences between the reserve estimates?

Secretary HERRINGTON. We have issued that contract. I might ask Secretary Wampler to comment on it.

Mr. WAMPLER. There were significant differences in estimates of the reserves. We basically had a number that we used in our long-range plan and one that our contractor used. We did hire a firm to do a very comprehensive reserve estimate and they will be finishing that this summer. July 31 is the due date that we have on it.

We also are looking at NPR No. 3 with a less comprehensive reserve estimate simply because of the size of it. We feel we have a good handle on what is in the stripper field there.

Senator McCLURE. Have you had a chance to do anything other than just simply make some preliminary estimates or comparisons between the reserve estimates?

Mr. WAMPLER. Nothing but preliminary work at this point in time. In fact, we are not able at this point in time to make an estimation of where we are in regard to those estimates. We will be within a month.

Senator McCLURE. It is correct to say, though, is it not, that there are widely varying estimates?

Mr. WAMPLER. Certainly. There are widely varying estimates.

Senator McCLURE. Can you give us an idea of what information has been given to you?

Mr. WAMPLER. There never were very comprehensive reserve studies done on Elk Hills. As long as we were operating under a unit plan contract with Chevron it was not that important to have that accurate a reserve estimate. When you start to divest, it certainly becomes very important that you know how much is there.

Senator McCLURE. Doesn't the reserve estimate have something to do with your most efficient production?

Mr. WAMPLER. It does, and we have done a lot of work on specific wells and we think we have that well in hand. As far as doing comprehensive sand counts throughout the field, those have not been done to this point.

Senator McCLURE. Has Chevron not done it either?

Mr. WAMPLER. They have their own reserve estimate, but I do not know how comprehensive it is.

Senator McCLURE. Have you incorporated the recommendations made by Shearson Lehman Brothers into the plans to sell NPR No. 1 and No. 3?

Mr. WAMPLER. Yes; we have.

Senator McCLURE. You will get the reserve estimates at the end of July?

Secretary HERRINGTON. July 31.

## SALE OF NAVAL PETROLEUM RESERVES NO. 1 AND NO. 3

Senator McCLURE. If you had the authority, how soon could you move toward sale?

Mr. WAMPLER. If we had the authority, we could sell in the last quarter of fiscal year 1989.

Senator McCLURE. The last quarter?

Mr. WAMPLER. We could have a sale consummated in the last quarter.

Senator McCLURE. If you do not have good reserve estimates now and you are contracting them, what reserve estimates did you use when you estimated the value of the reserves of the proposed sale last year?

Mr. WAMPLER. We used both estimates and we used a range of value. That is why there is a $3.4 billion to $4.2 billion range.

Senator McCLURE. Do you think the reserves are within that range?

Mr. WAMPLER. We feel they are.

Senator McClure. How were the private sector participants going to make their choices? Was it just going to be kind of a bidding gamble on their part?

Mr. Wampler. It is important to look at the way the sale was structured, with an operating share, royalty trusts, and partnerships. Shearson informed us that any company interested in buying oil property would certainly do their own estimate independent and irrespective of the estimate that we are doing now.

Senator McClure. How long do you expect that will take?

Mr. Wampler. It would take them some months, I would expect, to do their own estimate.

Senator McClure. How do you plan to proceed with the sale of NPR if you are given the authority? Assume that Congress just gave you the authority. What would be your plans?

Secretary Herrington. I do not think we know today. I think we have to look at what the potential is and what is recommended and then have our consultations with Congress. There may be several different opinions on how it should be done.

### UNIT PLAN CONTRACT WITH CHEVRON

Senator McClure. Another recommendation made by Shearson Lehman Brothers was that a new unit plan contract be negotiated with Chevron. They felt that the existing contract contains provisions which would not be found in a normal oil industry agreement.

Do you agree with that, that there are unit provisions?

Secretary Herrington. I noticed that provision. I think that is a significant finding. I am not an expert in oil contracts, but we have taken that under advisement.

Senator McClure. I also understand that they have suggested that these provisions may make the Government's ownership difficult to transfer.

Secretary Herrington. I have not heard that.

Mr. Wampler. There are several things in a unit plan contract involving the Department as a party that obviously are not usual. A good deal of them have to do with unique rights that the Secretary has to make unilateral decisions which would not be true in the case of two private owners. As such, we feel those are not transferable. We feel those are technical matters. Chevron has indicated their willingness at the appropriate time to renegotiate a unit plan contract.

Senator McClure. Thank you very much. I may have some further questions to submit for the record.

Thank you, Mr. Chairman.

### ADDITIONAL COMMITTEE QUESTIONS

Senator Byrd. Thank you, Mr. Secretary. Thank you, Secretary Wampler and Mrs. Smedley. We will have additional questions for you to respond to for the record. We hope you can do this quickly inasmuch as we expect to mark up the fiscal year 1989 Department of the Interior and related agencies appropriation bill within a few days.

[The following questions were not asked at the hearing but were submitted to the Department for response subsequent to the hearing:]

## ADDITIONAL COMMITTEE QUESTIONS

### Strategic Petroleum Reserve

Question: The Administration previously opposed additional funds for construction of new storage capacity at Big Hill and other sites. The President's FY 1989 budget reverses that trend and supports construction of a full 750 million barrel reserve. What is the Administration's position on the need for storage capacity beyond 750 million barrels?

Answer: The matter of expansion is under constant and continuing consideration. All factors important to this planning merit new consideration and review. Among the factors that must be addressed are projected levels and patterns of oil imports, domestic refining trends, drawdown and distribution considerations, expansion of existing sites versus new site development options, and trends in petroleum consumption.

Question: The FY 1989 budget proposes to establish a separate 10 million barrel Defense Reserve, assuming that legislation to sell Naval Petroleum Reserves 1 and 3 is passed as an offset. Why shouldn't the Defense Reserve be funded directly in the Defense Appropriations Bill?

Answer: Funding a 10 million barrel Defense Petroleum Inventory (DPI) as dedicated defense reserve directly in the Defense Appropriations Bill is a different, but possible alternative. The Administration proposes, however, to fund the initial creation of the DPI from receipts generated by divestiture of the Naval Petroleum Reserves Numbered 1 and 3. Although annual appropriations for the Reserves have been provided from the Interior account, the Reserves were established and set aside by the United States for defense purposes. The Administration's proposal accommodates that purpose through establishing the DPI with Reserves' receipts.

Question: Under the budget scoring rules, funding to fill the SPR, using receipts from the Naval Petroleum Reserve sale, would be scored against the Interior Appropriation Bill. If the Congress does agree to sell the Naval Petroleum Reserve this year, and I doubt that will happen, is the Administration prepared to work with Congress to ensure that the use of the sale receipts is simply considered an exchange and is not charged against the budget?

Answer: The Administration is not advocating positions inconsistent with the Budget summit Agreement, however, we are prepared to work with the Congress to remove obstacles to using receipts from the Reserve sales for funding SPR fill. This may be particularly sensible since the receipts from oil sales would be received in any case -- only earlier by virtue of divestiture.

### Energy Conservation Grants

Question: When Assistant Secretary Fitzpatrick appeared before the Subcommittee on April 12, 1988, she testified that no funds were requested in FY 1989 for energy conservation grants to state and local governments. The rationale which she provided and which has consistently been given to the Subcommittee for the absence of requests for programs such as low-income weatherization grants is that states have some 14 years of oil-overcharge monies available to them to use for these state and local programs at rates equivalent to current appropriation levels. Do you agree that this is a satisfactory rationale for including no requests for state and local grant funding in the FY 1989 budget?

Answer: Over $3.5 billion in petroleum violation escrow (PVE) funds have been distributed to the states to date. Inasmuch as plans submitted by the states for the use of PVE funds account for less than half of the disbursements and the states have actually spent much less than has been allocated, we believe that the state and local governments will have ample resources to carry out in FY 1989 those conservation activities which they consider to be most effective and useful. The PVE funds, together with the President's request for the Federal energy conservation programs, are more than adequate to fund state and local assistance programs in FY 1989.

Question: Isn't it correct that the assumption that there are 14 years of oil-overcharge funds available to the states is predicated upon not using any of the remaining funds for the Low Income Energy Assistance Program (LIHEAP)?

Answer: It is correct that the analysis on duration of PVE projects does not include potential LIHEAP expenditures. This is because LIHEAP is not a Department of Energy program, and current, complete, and verifiable information on LIHEAP is not readily available to the Department; it should be obtained from the Department of Health and Human Services.

Question: If LIHEAP funding requirements were added to the equation, wouldn't the total remaining funds available to the states be exhausted within one year?

Answer: If PVE funds were used in place of annual Congressional appropriations for LIHEAP, the FY 1989 LIHEAP appropriation of approximately $1.2 billion would exhaust the remaining Exxon and Stripper Well funds in a little over a year. Inasmuch as LIHEAP information is available to DOE only on an annual basis in state reports on the use of PVE funds (and for which complete information has been provided thus far only for the period March 1986 - March 1987), our best estimate of the portion of PVE funds that has been committed to LIHEAP is 7.6 percent for Exxon and 8.8 percent for Stripper Well.

Question: More significantly, the 14-year funding availability figure is just an average for the states, isn't it?

Answer: Yes, this is an overall average of all the states.

Question: If federal funding is eliminated for state and local conservation grants in FY 1989, how will states like North and South Dakota, Minnesota, Colorado, Idaho and Iowa fund their weatherization projects, among other things, when their overcharge funds are exhausted in the near future?

Answer: Of the six states cited above, North and South Dakota, Colorado, Idaho and Minnesota have allocated all of their Exxon oil overcharge funds as of March 1988, and Iowa has allocated over half of its funds. As the chart below demonstrates, in the five states for which we have information, only 46 percent of the funds has been obligated and only 14 percent has actually been spent. When the states' funds are expended, and in the absence of additional PVE disbursements or Federal appropriations, the states will need to draw upon locally generated resources to finance weatherization projects using, if they so choose, innovative funding techniques such as shared savings developed and demonstrated for them during the years of Federally funded conservation assistance programs.

Annual reports received to date from five of the six states under consideration provide the following information concerning the status of those states' Exxon funds (in millions of dollars):

| State | Allocated | Obligated | Expended |
|---|---|---|---|
| Colorado | 25.3 | 23.8 | 14.6 |
| Iowa | 17.7 | 15.7 | 6.1 |
| Minnesota | 36.5 | 29.2 | (Information has been requested.) |
| North Dakota | 8.4 | 4.6 | 0.3 |
| South Dakota | 8.3 | 3.9 | 1.3 |

Therefore, based on the above data, the States have not expended all their allocated funds.

Total PVE receipts of the six states compare with annual Federal grants as follows:

| State | Total PVE funds | Total grants, FY 1988 BA |
|---|---|---|
| Colorado | $37,260,106 | $4,209,391 |
| Idaho | 14,418,948 | 1,856,240 |
| Iowa | 45,617,080 | 4,518,795 |
| Minnesota | 59,667,881 | 9,055,074 |
| North Dakota | 13,052,483 | 2,268,688 |
| South Dakota | 12,471,556 | 2,014,885 |

Question: Is there a correlation between a state's need for weatherization assistance and the distribution of oil-overcharge monies which are based on a state's petroleum usage during the violation period?

Answer: There was no planned correlation. The formula by which Federal appropriations are determined for state weatherization combines state climate figures and the percentage of each state's low-income population. The resulting percentage of total weatherization appropriated funds provided to each state, however, is provided in the attached table.

Question: Would you please provide for the record the correlation cooefficients by state for the two factors?

Answer: The following table provides for FY 1988 a comparison of oil overcharge and WAP funds received by the states.

| STATE | TOTAL OVERCHARGE FUNDS, INCLUDING OHA | PERCENTAGE OF OVERCHARGE FUNDS RECEIVED | FY 1988 WAP APPROPRIATION | PERCENTAGE OF WAP FUNDS RECEIVED |
|---|---|---|---|---|
| ALABAMA | $53,383,476 | 1.5% | $1,431,488 | 0.9% |
| ALASKA | $13,692,420 | 0.4% | $1,426,247 | 0.9% |
| AMERICAN SAMOA | $671,588 | 0.0% | $0 | 0.0% |
| ARIZONA | $35,216,916 | 1.0% | $599,873 | 0.4% |
| ARKANSAS | $42,154,102 | 1.2% | $1,354,990 | 0.8% |
| CALIFORNIA | $323,261,040 | 9.3% | $4,256,241 | 2.6% |
| COLORADO | $37,260,106 | 1.1% | $3,615,378 | 2.2% |
| CONNECTICUT | $57,195,215 | 1.7% | $2,245,680 | 1.4% |
| DELAWARE | $16,058,807 | 0.5% | $506,585 | 0.3% |
| DISTRICT OF COLUMBIA | $7,797,291 | 0.2% | $601,836 | 0.4% |
| FLORIDA | $160,300,611 | 4.6% | $529,776 | 0.3% |
| GEORGIA | $77,608,029 | 2.2% | $1,616,915 | 1.0% |
| GUAM | $4,894,049 | 0.1% | $0 | 0.0% |
| HAWAII | $23,948,341 | 0.7% | $166,392 | 0.1% |
| IDAHO | $14,418,948 | 0.4% | $1,565,252 | 1.0% |
| ILLINOIS | $160,921,781 | 4.7% | $9,858,725 | 6.1% |
| INDIANA | $85,493,707 | 2.5% | $4,629,308 | 2.9% |
| IOWA | $45,617,080 | 1.3% | $3,894,189 | 2.4% |
| KANSAS | $40,683,144 | 1.2% | $1,787,939 | 1.1% |
| KENTUCKY | $44,568,746 | 1.3% | $3,094,226 | 1.9% |
| LOUISIANA | $84,448,222 | 2.4% | $704,998 | 0.4% |
| MAINE | $24,791,862 | 0.7% | $2,650,760 | 1.6% |
| MARYLAND | $60,438,332 | 1.7% | $2,105,663 | 1.3% |
| MASSACHUSETTS | $115,038,885 | 3.3% | $5,355,808 | 3.3% |
| MICHIGAN | $119,203,041 | 3.4% | $10,915,549 | 6.8% |
| MINNESOTA | $59,667,881 | 1.7% | $8,133,472 | 5.0% |
| MISSISSIPPI | $47,097,150 | 1.4% | $929,466 | 0.6% |
| MISSOURI | $68,663,552 | 2.0% | $4,275,756 | 2.6% |
| MONTANA | $15,512,419 | 0.4% | $1,843,363 | 1.1% |
| NEBRASKA | $25,427,880 | 0.7% | $2,022,169 | 1.3% |
| NEVADA | $14,306,658 | 0.4% | $468,057 | 0.3% |
| NEW HAMPSHIRE | $15,674,964 | 0.5% | $1,351,163 | 0.8% |
| NEW JERSEY | $123,828,049 | 3.6% | $4,484,265 | 2.8% |
| NEW MEXICO | $22,346,267 | 0.6% | $1,285,191 | 0.8% |
| NEW YORK | $260,282,861 | 7.5% | $16,643,062 | 10.3% |
| NORTHERN MARIANAS | $305,866 | 0.0% | $0 | 0.0% |

| STATE | TOTAL OVERCHARGE FUNDS, INCLUDING OHA | PERCENTAGE OF OVERCHARGE FUNDS RECEIVED | FY 1988 WAP APPROPRIATION | PERCENTAGE OF WAP FUNDS RECEIVED |
|---|---|---|---|---|
| NORTH CAROLINA | $76,254,102 | 2.2% | $2,586,869 | 1.6% |
| NORTH DAKOTA | $13,052,483 | 0.4% | $1,995,071 | 1.2% |
| OHIO | $131,988,390 | 3.8% | $9,161,201 | 5.7% |
| OKLAHOMA | $43,308,114 | 1.3% | $1,624,072 | 1.0% |
| OREGON | $34,474,407 | 1.0% | $2,120,406 | 1.3% |
| PENNSYLVANIA | $159,578,696 | 4.6% | $10,694,515 | 6.6% |
| PUERTO RICO | $38,012,010 | 1.1% | $0 | 0.0% |
| RHODE ISLAND | $13,242,094 | 0.4% | $996,377 | 0.6% |
| SOUTH CAROLINA | $40,803,086 | 1.2% | $995,003 | 0.6% |
| SOUTH DAKOTA | $12,471,556 | 0.4% | $1,751,543 | 1.1% |
| TENNESSEE | $56,184,751 | 1.6% | $2,823,940 | 1.8% |
| TEXAS | $258,137,495 | 7.5% | $2,123,407 | 1.3% |
| UTAH | $20,843,211 | 0.6% | $1,507,764 | 0.9% |
| VERMONT | $8,046,939 | 0.2% | $1,125,538 | 0.7% |
| VIRGIN ISLANDS | $15,965,040 | 0.5% | $0 | 0.0% |
| VIRGINIA | $87,171,960 | 2.5% | $2,807,473 | 1.7% |
| WASHINGTON | $53,191,699 | 1.5% | $3,337,274 | 2.1% |
| WEST VIRGINIA | $20,754,525 | 0.6% | $2,136,995 | 1.3% |
| WISCONSIN | $60,573,693 | 1.8% | $6,423,622 | 4.0% |
| WYOMING | $14,300,295 | 0.4% | $796,320 | 0.5% |
| TOTAL | $3,460,633,832 | | $161,357,172 | |

## QUESTION SUBMITTED BY SENATOR JAMES McCLURE

Question: How will the retrofit technologies selected in the second Clean Coal solicitation differ from the retrofit technologies selected in the Clean Coal I?

Answer: The retrofit technologies to be selected in the second Clean Coal solicitation (ICCT)) will differ from the retrofit technologies selected in Clean Coal I (CCT-1) in several respects. The second round selection of retrofit technologies are expected to include some innovative techniques, which have not been selected previously, that are capable of achieving significant reductions of sulfur dioxide and/or nitrogen oxides emissions from existing coal burning facilities. Also, new demonstration sites will be selected and the geographical distribution of second round selections of retrofit projects will be different from selections made in CCT-1. The project scale, as indicated by size and schedule, is another dimension in which the second round retrofit selections will differ from retrofit technologies selected in CCT-I. The type of coal used in demonstrating the second round retrofit technologies will also be different from CCT-I selections. The domestic coal resource base exhibits widely varying properties (e.g., sulfur, ash, volatile content, heat value, hardness) depending on mining location. Because of the wide variation in coal properties, demonstrations of retrofit technologies on different coals is required. Finally, an important factor which will be different involves the expected improvement in cost effectiveness of the second round retrofit selections over earlier selections.

### CONCLUSION OF HEARINGS

Senator BYRD. The subcommittee will stand in recess awaiting the call of the Chair.

[Whereupon, at 9:35 a.m., Monday, June 6, the hearings were concluded, and the subcommittee was recessed, to reconvene, subject to the call of the Chair.]

# LIST OF WITNESSES, COMMUNICATIONS, AND PREPARED STATEMENTS

Page

- Able, Edward H., Jr., American Association of Museums, prepared statement 1145
- Allen, Michael on behalf of Lac du Flambeau Band of Lake Superior Chippewa Indians 855
  - Prepared statement 857
- Allen, Thomas J., Assistant Director for Management Services, Bureau of Land Management, Department of the Interior 643
- American Petroleum Institute, prepared statement 1126, 1130
- American Public Power Association, prepared statement 1165
- American Society of Civil Engineers, prepared statement 1114
- Assiniboine and Sioux Tribes of the Fort Peck Reservation, prepared statement 1052
- Association on American Indian Affairs, Inc., letter from 1045
- Atherton, Charles H., Secretary, Commission of Fine Arts 225
- Atkinson, Harris, mayor, Metlakatla Indian Community, prepared statement 1089
- Atkinson, Hawley, Chairman, Navajo and Hopi Indian Relocation Commission 605
  - Prepared statement 606

- Bajura, Richard A., director, Energy and Water Research Center, West Virginia University 807
  - Prepared statements 816, 831, 836, 839
- Baker, Carol, Acting President, Institute of American Indian Arts 639
  - Prepared statement 639
- Baly, Michael III, vice president, government relations, American Gas Association 754
  - Prepared statement 758
- Bauer, Donald L., Principal Deputy Assistant Secretary, Fossil Energy Fossil Energy Research and Development Programs, Department of Energy 249
- Bavasi, Christopher J., Executive Director, Navajo and Hopi Indian Relocation Commission 605
- Beilenson, Hon. Anthony C., U.S. Representative from California 1261
  - Prepared statement 1264
- Berg, John R., Principal Deputy Assistant Secretary, Energy Conservation Programs, Department of Energy 127
- Bickley, Ancella Radford, independent scholar from West Virginia, on behalf of the Federation of State Humanities Councils 965
  - Prepared statement 967
- Big Mountain Legal Office, prepared statement 1094
- Blas, Hon. Frank, Lieutenant Governor, Guam 419
  - Prepared statement 420
- Bloom, Harold, Assistant Inspector General for Audits, Office of the Inspector General, Department of the Interior 599
- Bond, Hon. Christopher S., U.S. Senator from Missouri 1271
  - Prepared statement 1272
- Boone, Nancy, Territorial Liaison Chief, Office of Territorial and International Affairs, Department of the Interior 513

Page

Brown, J. Carter:
  - Chairman, Commission of Fine Arts ..... 225
    - Prepared statement ..... 226
  - Director, National Gallery of Art ..... 207
    - Prepared statement ..... 207

Bucklew, Dr. Neil S., president, West Virginia University National Research Center for Coal and Energy, prepared statement ..... 1121
Bumpers, Hon. Dale, U.S. Senator from Arkansas, questions submitted by ..... 123, 359
Burdick, Hon. Quentin N., U.S. Senator from North Dakota, questions submitted by ..... 337, 742
Burford, Robert F., Director, Bureau of Land Management, Department of the Interior ..... 643
  - Prepared statement ..... 645

Burnham, Dr. William, president, the Peregrine Fund, Inc., prepared statement ..... 1112
Bush, Robert D., Executive Director, Advisory Council on Historic Preservation ..... 233
  - Prepared statement ..... 234

Cahoon, C. Richard, Petroleum Marketers Association of America, prepared statement ..... 1151
Campbell, Faith Thompson, Natural Resources Defense Council, prepared statement ..... 1109
Chamberlin, Ward, Jr., president of WETA, on behalf of the National Association of Public Television Stations ..... 973
  - Prepared statement ..... 975

Clancy, Carol A., Associate Solicitor, Surface Mining, Office of the Solicitor, Department of the Interior ..... 585
Clark, Robert, executive director, Bristol Bay Area Health Corp., prepared statement ..... 1093
Clements, Michael R., president, Intertribal Timber Council, prepared statement ..... 1105
Cloud, Paul Iron, president, Oglala Sioux Tribe, prepared statement ..... 1155
Coates, Vincent J., Jr., vice president, MHD Industrial Forum ..... 766
  - Prepared statement ..... 767

Cochran, Hon. Thad, U.S. Senator from Mississippi, questions submitted by ..... 115, 358
Collier-Thomas, Dr. Bettye, executive director, Bethune Council House National Historic Site, prepared statement ..... 1186
Collins, Rev. Byron, on behalf of Rev. William L. George, S.J., assistant to the president of Georgetown University for Federal relations ..... 995
Confederated Salish and Kootenai Tribes of the Flathead Reservation, prepared statement ..... 1075
Cooke, Eileen D., director, American Library Association, letter from ..... 1179
Council of Energy Resource Tribes, prepared statement ..... 1059
Cranston, Hon. Alan, U.S. Senator from California ..... 1274
  - Prepared statement ..... 1276

Crawshaw, Julie, Arroyo Grande, CA, letter from ..... 1196
Cutler, Dr. M. Rupert, Ph.D., president, Defenders of Wildlife ..... 944
  - Prepared statement ..... 945

Cypress, Billy, chairman, Miccosukee Tribe of Indians of Florida, prepared statement ..... 1065

Darden, Daniel, on behalf of the Chitimacha Tribe of Louisiana ..... 845
  - Prepared statement ..... 848

Daugherty, M. Dennis, Associate Solicitor, Indian Affairs, Office of the Solicitor, Department of the Interior ..... 585
  - Biography of ..... 587

Dean, William L., Assistant Inspector General for Administration, Office of the Inspector General, Department of the Interior ..... 599
  - Biography of ..... 602

DeConcini, Hon. Dennis, U.S. Senator from Arizona, questions submitted by ..... 104, 726, 1254

Page

DeLaCruz, Joseph B., president, Quinault Indian Nation, letter from ..... 1100
Dowd, W. Timothy, executive director, Interstate Oil Compact Commission, prepared statement ..... 1124
Ducheneaux, Wayne, chairman, Cheyenne River Sioux Tribe ..... 914
  Prepared statement ..... 915
Dunlop, George S., Assistant Secretary, Department of Agriculture ..... 1
  Prepared statement ..... 3
de Brum, Oscar, chief secretary, Republic of the Marshall Islands ..... 463
  Prepared statement ..... 464
de Lugo, Hon. Ron, chairman, House subcommittee on insular and international affairs, Virgin Islands ..... 363

Eiken, Dr. Douglas K., president, National Association of State Outdoor Recreation Liaison Officers, prepared statement ..... 1158
Enewetak, People of, prepared statement ..... 493
Evans, Anne B., Administrator, National Gallery of Art ..... 207
Everson, Nanette R., Associate Solicitor, General Law, Office of the Solicitor, Department of the Interior ..... 585
  Biography of ..... 587

Farrelly, Hon. Alexander, Governor, Virgin Islands ..... 363
  Prepared statement ..... 366
Fedoruk, Nicholas A., director, Energy Conservation Coalition ..... 803
  Prepared statement ..... 805
Fitzpatrick, Donna R., Assistant Secretary for Conservation and Renewable Energy, Energy Conservation Programs, Department of Energy ..... 127, 1291
  Biography of ..... 139
  Prepared statement ..... 130
Fleischman, Joyce N., Deputy Inspector General, Office of the Inspector General, Department of the Interior ..... 599
Fowler, Alan, secretary of finance, Republic of the Marshall Islands ..... 463
Fumich, George, George Fumich Associates ..... 807
  Prepared statement ..... 811
Fund for Animals Inc., prepared statement ..... 1168

Garn, Hon. Jake, U.S. Senator from Utah, questions submitted by ..... 112, 743
Gaspar, Russell J., Esq., attorney, American Horse Protection Association ..... 952
  Prepared statement ..... 954
George, Georgia C., chairperson, the Suquamish Tribe, prepared statement ..... 1157
George, Rev. William L., S.J., assistant to the president, Georgetown University, prepared statement ..... 996
Gordon, Hon. Bart, U.S. Representative from Tennessee, prepared statement ..... 1287
Gorrell, Joseph W., Principal Deputy Assistant Secretary, Policy, Budget and Administration, Office of the Secretary, Department of the Interior ..... 559, 1205
Green, Hon. Bill, Secretary, Franklin Delano Roosevelt Memorial Commission ..... 197
  Prepared statement ..... 198
Gurnoe, Richard, Red Cliff Band of Lake Superior Chippewa Indians, prepared statement ..... 1172

Haney, Michael, National Urban Forest Council, prepared statement ..... 1135
Hatfield, Hon. Mark O., U.S. Senator from Oregon, questions submitted by ..... 95, 741
Hayward, Mark S., Deputy Assistant Secretary, Office of Territorial and International Affairs, Department of the Interior ..... 513
  Prepared statement ..... 517
Heggestad, David, Budget Officer, Office of Territorial and International Affairs, Department of the Interior ..... 513
Herbst, Robert L., executive director, Trout Unlimited, prepared statement ..... 1177
Hermann, James G., Minnesota Society of Arboriculture, letter from ..... 1190
Herrick, Daniel, Treasurer, National Gallery of Art ..... 207

Page

- Herrington, Hon. John S., Secretary of Energy, Office of the Secretary, Department of Energy ..... 1291
  - Prepared statement ..... 1292
- Hildebeidel, Roger L., Chief, Division of Budget, Bureau of Land Management, Department of the Interior ..... 643
- Hillman, Robert, chief investigator, Animal Protection Institute ..... 1013
  - Prepared statement ..... 1016
- Hoag, Robert, president, the Seneca Nation of Indians, prepared statement ..... 1049
- Hodel, Donald P., Secretary, Office of the Secretary, Department of the Interior ..... 1205
  - Prepared statement ..... 1206
- Hoeksema, Roger G., urban forester, Michigan Department of Natural Resources, prepared statement ..... 1142
- Holland, Read, director, school of mines and energy development, University of Alabama ..... 998
  - Prepared statement ..... 1001

- Inos, Eloy, finance director, Commonwealth of the Northern Mariana Islands ..... 429
- Inouye, Hon. Daniel K., U.S. Senator from Hawaii, prepared statement ..... 1281
- International Association of Fish & Wildlife Agencies, prepared statement ..... 1198
- Itteilag, Anthony L., Director of Budget, Department of the Interior ..... 643, 1205
- Iuli, Joseph K., budget director, American Samoa ..... 373

- Jackson, Zane, tribal council chairman, the Confederated Tribes of the Warm Springs Reservation of Oregon, prepared statement ..... 1046
- Jaime, James, chairman, Quileute Tribal Council, prepared statement ..... 1071
- Janger, Stephen A., president, Close Up Foundation, prepared statement ..... 1143
- Joe, Robert, Sr., chairman, Swinomish Tribal Community, prepared statement ..... 1097
- Johnson, Dan, rancher, Buffalo, SD ..... 959
- Johnson, Dr. Emory, the United South and Eastern Tribes ..... 895
  - Prepared statement ..... 897
- Johnston, Hon. J. Bennett, U.S. Senator from Louisiana, questions submitted by ..... 332

- Kaplan, Dennis, Chief, Budget Control and Analysis, Department of Agriculture ..... 1
- Katz, Stanley, president, American Council of Learned Societies, on behalf of the National Humanities Alliance ..... 980
  - Prepared statement ..... 981
- Kauffman, JoAnn, executive director, Seattle Indian Health Board, prepared statement ..... 1173
- Kendall, Wilfred, representative, Republic of the Marshall Islands ..... 463
- Keough, Eugene J., Chairman, Franklin Delano Roosevelt Memorial Commission, prepared statement ..... 199
- Kinley, Larry G., chairman, Lummi Indian Business Council, prepared statement ..... 1097
- Kuene, Russell, on behalf of Mrs. Morton, International Committee of Monuments and Sites ..... 926

- Lawrence, Dr. L.R., Jr., president, Bob Lawrence & Associates, prepared statement ..... 1167
- Lawton, Robert H., Assistant Director for Energy and Mineral Resources, Bureau of Land Management, Department of the Interior ..... 643
- Lee, Bernard S., president, Institute of Gas Technology, prepared statement ..... 1079
- Lenhart, Cynthia, wildlife programs, National Audubon Society, prepared statement ..... 1160
- Leonard, George M., Associate Chief, Forest Service, Department of Agriculture ..... 1
  - Prepared statement ..... 1055
- Levin, Hon. Carl, member, Franklin Delano Roosevelt Memorial Commission ..... 197
  - Prepared statement ..... 200

Page

Long, Wesley H., on behalf of National Association of Regulatory Utility Commissioners ... 792
  Prepared statement ... 795
Longsworth, Nellie L., president, Preservation Action ... 1008
  Prepared statement ... 1010
Lutali, Hon. A.P., Governor, American Samoa ... 373
  Prepared statement ... 377

Manglonia, Benjamin T., president of the senate, Commonwealth of the Northern Mariana Islands, prepared statement ... 436
Manville, Albert M. II, Ph.D., senior staff wildlife biologist, Defenders of Wildlife, prepared statement ... 1083
Marehalau, Jesse, resident representative, Federated States of Micronesia ... 451
  Prepared statement ... 453
Massetto, Sandra, Commissioner, Navajo and Hopi Indian Relocation Commission ... 605
McAlister, Michael J., Director, Management, Navajo and Hopi Indian Relocation Commission ... 605
McClure, Hon. James A., U.S. Senator from Idaho, questions submitted by ... 74, 187, 220, 245, 338, 552, 577, 594, 710, 1322
Michels, Carolyn, executive director, Norton Sound Health Corp., prepared statement ... 1091
Mitchell, H. Bryan, Virginia State historic preservation officer, National Conference of State Historic Preservation Officers, prepared statement ... 1081
Morton, Terry B., Hon. AIA chairman, U.S. Committee of the International Council on Monuments and Sites, prepared statement ... 928
Moss, Sid, president, National Association of State Foresters ... 930
  Prepared statement ... 932
Myer, Donald B., Assistant Secretary, Commission of Fine Arts ... 225

National Association of State Universities and Land-Grant Colleges, prepared statement ... 1184
Navajo Nation, prepared statements ... 1041, 1087, 1149
Nelson, Gordon L., president, American Chemical Society, prepared statement ... 1119
Nephew, Mark, administrator, Detroit American Indian Health Center ... 891
  Prepared statement ... 893
Neumann, Loretta, Society for American Archeology ... 986
  Prepared statement ... 987
Nickles, Hon. Don, U.S. Senator from Oklahoma:
  Prepared statement ... 328
  Questions submitted by ... 114
Nighswonger, James J., extension specialist, environmental forestry, Kansas State University, prepared statement ... 1193

O'Brien, Rindy, director of governmental affairs, The Wilderness Society, prepared statement ... 1061
Oaks, Lawrence, chairman, National Conference on State Historical Preservation Officers ... 919
  Prepared statement ... 922
Oliker, Dr. Ishai, president, International District Heating and Cooling Association, prepared statement ... 1117
Oliver, Peter, special assistant, Republic of the Marshall Islands ... 463
Overbay, James C., Deputy Chief, National Forest System, Forest Service, Department of Agriculture ... 1

Pangelinan, Del, budget officer, Federated States of Micronesia ... 451
Parker, James M., Assistant Director for Support Services, Bureau of Land Management, Department of the Interior ... 643
Passamaquoddy Indian Township Tribal Government, prepared statement ... 1153
Paxton, Greg, chairman of the board, Preservation Action ... 1008

Page
Penobscot Indian Nation, prepared statement 1193
Porter, Phyllis, West Virginia Legislative Committee on behalf of American Association of Retired Persons 788
  Prepared statement 790
Power, Meg, legislative representative, National Community Action Foundation, prepared statement 1057
Powers, William L., professor, chair, National Association of Water Institute Directors, prepared statement 1067
Pressler, Hon. Larry, U.S. Senator from South Dakota, prepared statement 1286

Reid, Hon. Harry, U.S. Senator from Nevada, questions submitted by 732
Reidy, Michael J., director, bureau of budget and management research, Guam 419
Rex, Raymond C., manager of research and engineering, HY-Crude Corp 760
  Prepared statement 761
Rey, Mark, National Forest Products Association 934
  Prepared statement 936
Rice, William L., Deputy Chief, Administration, Forest Service, Department of Agriculture 1
Richards, James R., Inspector General, Office of the Inspector General, Department of the Interior 599
  Prepared statement 600
Ripple, James, special assistant for planning and budget affairs, Commonwealth of the Northern Mariana Islands 429
Roache, William H., Budget Officer, National Gallery of Art 207
Robertson, F. Dale, Chief, Forest Service, Department of Agriculture 1
  Prepared statement 4
Robinson, Thomas E., Associate Solicitor, Audit and Investigation, Office of the Solicitor, Department of the Interior 585
Robison, Roland G., Deputy Director, Bureau of Land Management, Department of the Interior 643
Rodden, James, Deputy Director of Administration, Office of the Solicitor, Department of the Interior 585

Sampson, Melvin R., chairman, Yakima Tribal Council, prepared statement 1073
Sampson, R. Neil, executive vice president, American Forestry Association, prepared statement 1196
Sansonetti, Thomas L., Associate Solicitor, Energy and Resources, Office of the Solicitor, Department of the Interior 585
  Biography of 587
Schlender, James H., executive administrator, Great Lakes Indian Fish and Wildlife Commission, prepared statement 1069
Schwab, Steve, urban forester, Salt Lake City, UT, prepared statement 1191
Schwalenberg, Dewey, executive director, Native American Fish & Wildlife Society 1026
  Prepared statement 1028
Seneca Nation, prepared statement 1077
Sesco, Jerry A., Deputy Chief, Research, Forest Service, Department of Agriculture 1
Shafferman, Howard H., Deputy Solicitor, Office of the Solicitor, Department of the Interior 585
Shea, Ernest, vice president, National Association of Conservation Districts 938
  Prepared statement 939
Sheehan, Thomas T., Assistant Inspector General for Investigations, Office of the Inspector General, Department of the Interior 599
Shell Offshore Inc., prepared statement 1188
Shoshone and Arapahoe Tribes, letter from 1043
Siegel, Jack S., Deputy Assistant Secretary, Coal Technology Fossil Energy Research and Development Programs, Department of Energy 249

Page

Sievert, Ralph C., Jr., city forester, division of urban forestry, Cleveland, OH, prepared statement 1141
Singer, Marvin I., Deputy Assistant Secretary, Oil, Gas, Shale and Special Technologies Fossil Energy Research and Development Programs, Department of Energy 249
Sirmon, Jeff M., Deputy Chief, Programs and Legislation, Forest Service, Department of Agriculture 1
Sita, Sharon, Budget Analyst, Department of the Interior 225
Smedley, Elizabeth E., Controller, Office of the Secretary, Department of Energy 1291
Society of American Foresters, prepared statement 1138
Soumei, Joachim, budget officer, Republic of the Marshall Islands 463
Southern Company Services, Inc., prepared statement 1133
Staley, John, superintendent of forestry, Grand Forks Park District, prepared statement 1137
Standing Rock Sioux Tribe, prepared statement 1102
Stepanek, Dean, Assistant Director for Lands and Renewable Resources, Bureau of Land Management, Department of the Interior 643
Stevens, Christine, secretary, Society for Animal Protective Legislation 948
    Prepared statement 949
Stevens, Hon. Ted, U.S. Senator from Alaska, questions submitted by 101, 733
Stewart, Frank, Director of State and Local Assistance Programs, Energy Conservation Programs, Department of Energy 127
Stovall, James, Washington counsel, Federated States of Micronesia 451
Streb, Alan J., Deputy Assistant Secretary for Conservation, Energy Conservation Programs, Department of Energy 127
Suman, Frank L., Administrative Officer, Advisory Council on Historic Preservation 233
Sunia, Hon. Fofo, Member of Congress, American Samoa 373
    Prepared statement 374

Tarr, Ralph W., Solicitor, Office of the Solicitor, Department of the Interior 585
    Prepared statement 586
Taveler, Bill, manager, Technology Department, American Gas Association 754
Taylor, Chief Jonathan L., principal chief, Eastern Band of Cherokee Indians 903
    Prepared statement 904
Tenorio, Hon. Pedro A., Lieutenant Governor, Commonwealth of the Northern Mariana Islands 429
    Prepared statement 430
Tessler, Paul, attorney, Navajo and Hopi Indian Relocation Commission 605
Thomas, John P., executive director, National Association of Counties, prepared statement 1113
Thompson, Warren S., dean, school of forest resources, Mississippi State University, prepared statement 1182
Tindall, Barry, on behalf of National Recreation and Park Association 1003
    Prepared statement 1005
Tollenson, Myrtle, tribal chairperson, Keeweenaw Bay Tribe 908
    Prepared statement 910
Toloa, Letuli, president of the senate, American Samoa 373
    Prepared statement 407
Trezise, John, Director of Budget and Finance, Office of the Secretary, Department of the Interior 559
Tuia, Tuana-Itau S., speaker of the house, American Samoa 373
    Prepared statement 408

Urban, James, landscape architect, prepared statement 1141

Page

Ventura, Rick, Assistant Secretary, Policy, Budget and Administration, Office of the Secretary, Department of the Interior ... 559, 1205
  Biography of ... 565
  Prepared statement ... 561

Walsh, Jeremiah E., Deputy Assistant Secretary, Management, Fundamental Research and Cooperative Development Fossil Energy Research and Development Programs, Department of Energy ... 249
Walter, J. Jackson, president, National Trust for Historic Preservation ... 841
  Prepared statement ... 843
Wampler, J. Allen, Assistant Secretary for Fossil Energy, Fossil Energy Research and Development Programs, Department of Energy ... 249, 1291
  Prepared statement ... 250
Watkins, Ralph A., Jr., Vice Chairman, Navajo and Hopi Indian Relocation Commission ... 605
Watts, David A., Acting Associate Solicitor, Conservation and Wildlife, Office of the Solicitor, Department of the Interior ... 585
  Biography of ... 587
Webb, David O., senior vice president, policy and regulatory affairs, Gas Research Institute ... 746
  Prepared statement ... 749
Weber, Charles C., city arborist, Huntsville, AL, prepared statement ... 1201
Weisgall, Jonathan M., legal counsel, People of Bikini, prepared statement ... 478
West, Allan J., Deputy Chief, State and Private Forestry, Forest Service, Department of Agriculture ... 1
Western Oil and Gas Association, prepared statement ... 1126
Whitehead, Marvin E., Budget Officer, Office of the Secretary, Department of the Interior ... 559
Williamson, Lonnie L., Wildlife Management Institute, prepared statement ... 1162
Willter, Haruo, special assistant to the President, Republic of Palau ... 501
  Prepared statement ... 505
Wilson, Hon. Pete, U.S. Senator from California, prepared statement ... 1282
Wilson, Tom, rancher, Buffalo, SD ... 959
  Prepared statement ... 960
Wisdom, Lawrence I., executive vice president, Hydrocarbon Research, Inc. ... 773
  Prepared statement ... 776

Yaeck, David C., member, Interstate Conference on Water Policy, prepared statement ... 1063
Yamagata, Ben, executive director, Clean Coal Technology Coalition ... 784
  Prepared statement ... 786
Youcton, Percy, chairman, Confederated Tribes of the Chehalis Reservation, prepared statement ... 1096

# SUBJECT INDEX

## ADVISORY COUNCIL ON HISTORIC PRESERVATION

Page
Additional committee questions ........ 239
Section 106 caseload ........ 238
Summary statement ........ 237
Training costs ........ 239

## COMMISSION OF FINE ARTS

Introduction of associates ........ 228
Travel expenses ........ 231
Washington Monument:
    Lighting ........ 231
    Visitors' facility ........ 230

## DEPARTMENT OF AGRICULTURE

### FOREST SERVICE

Additional committee questions ........ 39
Budget request ........ 1
Contract, volume under ........ 26
Fire rehabilitation ........ 28
Fishruns, restoring ........ 34
Forest road system ........ 24
Gypsy moth ........ 13
    Control ........ 14
    Expansion in West Virginia ........ 17
Hardwoods center at Princeton ........ 6
Integrated harvesting and forest management systems ........ 16
Law enforcement, cooperative ........ 22
Minerals ........ 21
Parsons Laboratory ........ 10
Research at Morgantown ........ 14
Road maintenance ........ 24
Sales versus harvest ........ 29
Timber:
    Hardwood bridges ........ 37
    Hardwoods ........ 35
    Offer level ........ 20
    Sale appeals ........ 28
Tongass National Forest ........ 31
Trail maintenance ........ 25

## DEPARTMENT OF ENERGY

### ENERGY CONSERVATION PROGRAMS

Page

Additional committee questions ..... 178
Additional conservation funding ..... 145
Appliance standards ..... 144
Automotive applications, ceramics in ..... 154
Battery research, industry participation in ..... 176
Budget request ..... 127
CAFE standards ..... 142, 144, 155
Ceramic heat exchangers ..... 169
Chlorofluorocarbons ..... 157
  Non-Federal agencies involved in ..... 159
  Substitutes ..... 162
Design phase awards ..... 169
Electric vehicle:
  Battery research ..... 175
  Progress in ..... 176
Electrical generation capacity ..... 144
Fitzpatrick's, Miss, background ..... 140
Foam insulation ..... 161
Funding levels:
  Conservation ..... 140
  Higher ..... 141
High priority programs ..... 153
Introduction of associates ..... 128
Management and Budget, Office of, memorandum ..... 156
Paper industry research ..... 162
Reprogramming guidelines ..... 156
State and local programs ..... 170
State grants ..... 172
Steel:
  Initiative ..... 167
  Making, use of electricity in ..... 168
Stirling and electric vehicles, comparison of ..... 164
Stirling engine:
  Automotive ..... 163
  Lack of industry interest in ..... 166
  Research ..... 163
  Use of hydrogen in the ..... 164
Superconductivity ..... 166
Trade deficit, impact of conservation on ..... 153
Weatherization:
  Assistance program ..... 170
  Savings ..... 143

### FOSSIL ENERGY RESEARCH AND DEVELOPMENT PROGRAMS

Additional committee questions ..... 329
Budget, fossil energy ..... 274
  Research and development ..... 296
Clean coal program ..... 275
  Morgantown Center's role in ..... 284
  Participation in ..... 286

Page

Clean coal:
  Projects in negotiation ... 278
  Solicitation:
    Second ... 280
    Status of ... 277
Coal:
  As energy resource ... 276
  International markets for ... 313
  Low rank ... 287
  Research ... 287
Employment ... 282
  Floors ... 306
ERC at West Virginia University ... 310
Fossil energy research and development ... 276
  Reductions ... 303
International agreements, funding for ... 326
Introduction of associates ... 274
Military-related research programs ... 285
Morgantown, administration building at ... 306
Oil recovery, enhanced ... 313
Positions, distribution of ... 283
Repayment procedures ... 281
  Clean coal 2 ... 282
Research facility, University of North Dakota ... 295
Tennessee Valley Authority ... 327
Transportation fuels, coal-derived ... 310
West Virginia University, construction of research center at ... 309

## OFFICE OF THE SECRETARY

Acid rain:
  Issue ... 1303
  Legislation ... 1304
Additional committee questions ... 1317
Appropriations, advance ... 1306
Clean coal:
  Outlays ... 1311
  Solicitation ... 1302
  Technology ... 1301
    Implementation of ... 1305
Defense petroleum inventory ... 1313
Discretionary versus mandatory funding ... 1306
Great Plains coal gasification plant ... 1315
Introduction of associates ... 1299
Morgantown Energy Technology Center ... 1307
  Administration building groundbreaking ... 1309
Naval Petroleum Reserves:
  Marketing plan ... 1315
  No. 1 and No. 3, sale of ... 1316
  Revenues ... 1313
Request, summary of fiscal year 1989 ... 1299
Scrubbers, cost of ... 1303
Strategic petroleum reserve fill rate ... 1313
Unit plan contract with Chevron ... 1317
Wasteful spending items, OMB list of ... 1310
West Virginia University Energy Center ... 1309

## DEPARTMENT OF THE INTERIOR

### BUREAU OF LAND MANAGEMENT

Page

- Additional committee questions .... 679
- Adoptions, increased regular .... 656
- Alaska lands programs .... 653
- Budget request for BLM, adequacy of the .... 661
- Desert land entry cases .... 652
- Eastern States land records .... 649
- Federal lands, unauthorized use of .... 651
- Fee waiver adoption suspension .... 658
- Fertility research study, investigation of deaths in .... 663
- Highlight statement .... 648
- Horses:
  - Deaths of adopted in North Dakota .... 656
  - Deaths, pending action regarding the .... 657
  - Removal of from the range .... 655
- Introduction of associates .... 648
- Lands:
  - Availability for local communities .... 649
  - Cases for YMCA and Jaycees Park, Nevada .... 676
- Mine shafts and workings, dangers from old .... 650
- Recreation and Public Purposes Act:
  - Leases .... 653
  - Reverter clause legislation .... 677
- Riparian activities .... 678
- Riparian areas, GAO report on .... 678
- Staffing levels, adequacy of BLM .... 659
- Waste disposal in Nevada .... 677
- Wild Horse and Burro Program .... 654
- Wild horses:
  - Fertility experiments .... 662
  - Problem solutions .... 661
  - Sanctuaries .... 655

### OFFICE OF TERRITORIAL AND INTERNATIONAL AFFAIRS

- Additional committee questions .... 527
- Assistance:
  - American Samoa .... 514
  - Guam .... 514
  - Northern Mariana Islands .... 514
  - Virgin Islands .... 514
- Bikini trust fund proposal .... 523
- Budget overview .... 513
- Close Up Program .... 527
- Compact of free association .... 515
- Introduction of associates .... 513
- Palau:
  - Funding .... 521
    - Concerns .... 523
  - Shortfall, possible reprogramming to cover .... 527
- RMI:
  - Education survey proposal .... 522
  - Suicide prevention proposal .... 522
- Salaries and expenses, OTIA .... 515
- Technical assistance funding .... 515
- Territories, administration of .... 514

Page

Trust Territory of the Pacific Islands ........ 515
  Deficit fluctuation ........ 526
  Government deficit ........ 525

OFFICE OF THE INSPECTOR GENERAL

Contract audits ........ 604
GSA space costs ........ 603
Increased pay costs ........ 603
Introduction of associates ........ 602
Space and pay costs ........ 602

OFFICE OF THE SECRETARY

Additional committee questions ........ 1253
Arctic National Wildlife Refuge ........ 1250
Budget summary ........ 1229
Hetch Hetchy studies ........ 1231
Mississippi River National Park proposal ........ 1242
Natchez Trace Parkway ........ 1241
  Funding ........ 1243
National Park Service:
  Employee housing ........ 1244, 1247
  Entrance fees ........ 1247
  Management activity ........ 1249
New River Gorge ........ 1230, 1232, 1241
Oil and gas reserves, domestic ........ 1251
Palau funding ........ 1251
Park Police pay ........ 1235
Political appointee conversion to career status ........ 1252
Report language, fiscal year 1988 ........ 1235
Santa Rita land exchange ........ 1246
Stillwater Wildlife Management Area ........ 1239
Striped bass ........ 1233
  Production, need for additional ........ 1235
Truckee-Carson River—Newlands project ........ 1238

POLICY, BUDGET AND ADMINISTRATION

Additional committee questions ........ 576
Budget request ........ 559, 566
Congressional directives ........ 570
Construction Management, Office of ........ 567
Funding levels ........ 568
Interior Building, preservation of main ........ 576
Introduction of associates ........ 566
Policy Analysis, Office of ........ 572
Reprogramming request ........ 567
Resource levels ........ 571
Solicitor, Office of the, budget support for the ........ 570

OFFICE OF THE SOLICITOR

Additional committee questions ........ 593
Introduction of associates ........ 589
Kentucky settlement agreement ........ 590
Legal research, computer-assisted ........ 593
Outer Continental Shelf sale 91 ........ 591
Promotions, funding for ........ 592

Page
Reorganization, Bureau of Reclamation 590
Solicitor's office budget function 591
Travel 593

## FRANKLIN DELANO ROOSEVELT MEMORIAL COMMISSION

Chairmanship of the Commission 203
Construction and operating funds, request for 203, 205
FDR Memorial, status of the 203
Membership 204
Memorial, reasons for building now 204

## NATIONAL GALLERY OF ART

Additional committee questions 218
Environmental work 212
Introduction of associates 208
National Sculpture Garden 210
Renovation 214
Visitors 209

## NAVAJO AND HOPI INDIAN RELOCATION COMMISSION

Archeological problems 633
Benefits, denials of 628
Bonus payments 633
Budget request 627
Client population 627
Discretionary funds 634
Economic development 636
Education expenses 635
Housing:
    Issues 630
    Repair program 630
Interagency cooperation 632
Introduction of associates 605
Navajo counseling contract 631
Nonapplicants 628
Range clusters 633
Relocation statistics, 1988 627
Rural community 637

## TERRITORIAL AFFAIRS

### AMERICAN SAMOA

Additional committee questions 415
Capital improvement requests, additional 412
Cost saving measures 414
Economic condition 412
Relations with OTIA, good working 415
Requests, fiscal year 1989 414
Revenue collections and control plan 413

### COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Covenant special representative vacancy 449
Introduction of associates 448
Saipan harbor 449

FEDERATED STATES OF MICRONESIA

Page

Additional committee questions 459
CIP project report 458
College of Micronesia 451, 457
Compact:
  Annual report on used development money 459
  Assessment of 458
Introduction of associates 451
Payments:
  Outstanding medical referral 452
  War claims/indefinite land use 451

GUAM

AGAT water distribution system 425
Control, efforts fiscal 424
Infrastructure needs 425
Introduction of Guam officials 424
Memorial hospital 425
Ordot landfill 425, 426
Water Quality Act exemption request 426

REPUBLIC OF PALAU

Budget request 502
Compact approval:
  Need for Palau 501
  Urged 503
Employee layoffs 510
Funding crisis, fiscal year 1988 510

REPUBLIC OF THE MARSHALL ISLANDS

Appropriations, additional sought by RMI 496
Bikini trust fund, proposed 498
Compact, RMI'S endorsement of 499
Introduction of RMI officials 463
Trust territory business, unfinished 497

VIRGIN ISLANDS

Drug funding, additional urged 370
Drug program 364
Economic condition, improved 369
Introduction of Virgin Islands officials 363
St. Thomas airport 371
Water:
  Infrastructure needs 371
  Needs 364